Clinical Remarks
ON
TRAUMATIC CONSECUTIVE ANEURISM OF THE ULNAR ARTERY.

DELIGATION OF THE BRACHIAL ARTERY WITH CATGUT; FAILURE OF LIGATURE; VESSEL TIED AGAIN WITH OX AORTA; CURE.

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GENTLEMEN,—I shall, among other things, make use of this case to point out what I cannot but think a mistaken mode of naming a certain condition—a mode which I fear is gaining ground, but which I shall do my best to combat. This child, aged seven, on June 6th, 1881, fell upon a piece of broken china or glass, and divided the ulnar artery about half an inch above the pisiform bone. The house-surgeon, Mr. Taylor, treated it by direct pressure with a pad, but on June 11th there was developed in the wound a little globular pulsating tumour. The blood, you see, became encapsuled, partly by coagulation of the outer layers of that already effused, partly by inflammatory induration of adjacent structures. This condition of affairs is "traumatic consecutive aneurism"—i.e., an encapsuled blood-tumour communicating with the interior of an artery consecutive to wound of the vessel. If this enclosure of the effusion had not taken place, the blood would have gone on disseminating itself limitless among the tissues. Such a condition is quite different from an aneurism, since that term connotes some sac-like arrangement, some capsule enclosing the blood. It is a wound of an artery with interstitial or subcutaneous hæmorrhage, and ought not to be termed an aneurism; "diffuse traumatic *aneurism*" applied to such a condition is a contradiction and confusion of terms.

To go on with the case. This little pulsating tumour being but feebly walled in, was evidently in danger of rupture; in fact, some hæmorrhage took place, and Mr. Taylor very wisely tried to check or minimise circulation in the vessel by bending the elbow at an acute angle. But this flexion treatment failed, as it often does; indeed, it rarely succeeds in the soft tissued condition of very early life. After forty-eight hours hæmorrhage recurred, and then Mr. Taylor tied the ulnar artery a little above and below the aneurismal swelling. This device seemed likely to succeed, but in six days—viz., June 19th, I saw that the tumour had again begun to pulsate with considerable force. I could find no beat in the ulnar above, nor did firm pressure at that place affect the throb of the tumour. The radial pulse was normal, and pressure on that artery stopped the pulsation of the tumour.

I may here check my narrative for a moment to point out to you the difficulties that attend the treatment of secondary or consecutive bleedings from the extremities or from certain districts of the neck, from all parts in fact where the vessels do not intercommunicate merely by capillaries but by large inosculations. I presume since our house-surgeon's operation was for six days effective, that he did really tie the ulnar artery on both sides of the wound, but blood found its way into the aneurism chiefly through the radial and ulnar anterior articular arteries.

On further examination I found that even powerful flexion of the arm did not stop the aneurismal pulsation unless a pad were placed in the bend of the elbow. I directed the case to be thus treated, but said that it very likely would be only temporarily efficacious, and that if severe bleeding recurred the brachial artery must be tied. The event justified these expressions, and late at night the brachial was tied about its middle with the thickest carbolised catgut made. Mr. Taylor performed this operation likewise, and when I examined the limb on the following day there was no pulse in radial and ulnar arteries, neither any pulsation in the aneurism. Three days afterwards there was a decided though rather faint wave in those vessels, this increased steadily and quickly. On Monday, June 23th, just a week within a few hours of the brachial deligation, I found the aneurismal sac beating again, warned the house-surgeon to be prepared for hæmorrhage, told him to restrain it by some form of compression, and to send for me. A few hours later there was sudden and considerable hæmorrhage from both the primary accidental and from the operation wound. An Esmarch cord was at once put on, and I arrived about seven o'clock.

Thus far, all attempts permanently to check the hæmorrhage had failed. It may be that had I chosen the other course open to me—namely, dissecting the sac sufficiently clear, then laying it open and securing every bleeding point—I probably should have stopped the bleeding, but if you consider the site of the aneurism, the inevitable interference with tendinous sheaths and other structures which such an operation would entail, if you remember that the wound was already suppurating, you will see that the effect must have been a large, deep, inflamed wound among structures the most unfavourable for such a condition, and that no one could say where the inflammation and the burrowing of pus might stop. A large proportion of cases at the wrist thus treated have ended badly—i.e., in permanent handlameness, in amputation, even in death. Deligation of the radial appeared to me too uncertain of good results. I preferred to have the brachial tied, and to trust in the healing of the arterial wound before the collateral circulation had established itself sufficiently to break through the newly-mended coats.

And now we come face to face with an event which deserves your fullest attention. Did this last attack of bleeding show that my expectation was fallacious and my practice wrong—in other words, does collateral circulation establish itself too quickly for permitting successful treatment of traumatic aneurism by this method? The answer to these questions may be gathered from the events—viz., the rapid reappearance of the pulse and the outbreak of hæmorrhage from both the wounds. These events indicated distinctly both their cause and the course to be pursued. If there were any doubt before concerning opening the sac it was now entirely set aside. It was evident that the bleeding did not arise from rapid development of the side channels, but from some failure of the ligature; and since there was bleeding also at the site of deligation, evidently the indication was to tie immediately above and below. I chose this latter course, and reopened the wound. The median nerve, its sheath covered by delicate fresh granulations, was at once visible; it was drawn aside, and discovered the knot of the catgut ligature lying upon the artery, but quite loose. Its noose, that part which ought to have encircled the vessel, had disappeared. Under this knot the artery, not at all constricted, was partially divided, its coats cut clean through, as with a knife, for about a third of its periphery. Out of this rift blood freely spouted, when command of the vessel above was relinquished. I now passed around the vessel above and below the wounded spot a ligature made from the ox aorta, tied them, verified the fact that no branch passed from the main vessel between the two, and cut them short.

The rest of the case is only the history of two wounds healing by granulation. No drop of blood was lost after this last operation. Slight, and not persistent, pulsation could be detected in the radial on the thirteenth day, and was fully established, but still very weak, on the fifteenth.

Now, it is necessary, in justice to Mr. Taylor, to point out that his operation was perfect—the knot was on the artery—and the fact that hæmorrhage was entirely restrained for seven days, save four hours, shows that the brachial artery was properly tied.

The material, however, was in fault, and that in a way which explains certain recorded events, whose causation, for want of opportunity, could not be investigated during life.

Let us take the eleventh volume of the Clinical Society's Transactions. Mr. Bryant's paper (p. 1) details the appearances in four preparations of vessels tied with catgut, in all of which the three vascular coats were completely divided through at a larger or smaller part of their periphery; in two of them all that remained of the ligature was the knot. A case also is described of deligation of the femoral artery (p. 4). The ligature, with the exception of the knot, had disappeared. The individuals had survived twelve, thirteen, and fourteen days.

At p. 49 Mr. Heath records his case of antiseptic deligation of the femoral artery with catgut. Ten hours afterwards recurrence of pulsation is noted, and this continued with certain intervals until "pulsation was distinct through

the whole length of the femoral artery twenty-nine days after ligature."

Mr. Smith also relates (p. 51) that he tied the femoral artery antiseptically with a piece of catgut supplied to him by Mr. Lister. "Forty-eight hours after operation pulsation was felt in the aneurism." The man left in a fortnight, the wound healed, the aneurism pulsating. A month later "he presented himself with the tumour pulsating as at first;" and, moreover, there was a new aneurism at the site of ligature.

I need hardly occupy your time by pointing out the analogies of these occurrences with the events of my case just related. Such are not the constant or even the usual results of deligation in continuity with catgut; but the instances just quoted are by no means the only examples of like or similar occurrences, which even were they less frequent must engender a profound distrust and sense of insecurity in the mind of an operator about to tie a large vessel with that material. He cannot but feel very uncertain as to what will happen with the cord he is about to use. The surgeon desirous of doing his best for the patient must have a ligature in which he can place implicit confidence.

ON HOSPITALS:

THEIR MANAGEMENT, CONSTRUCTION, AND ARRANGEMENTS IN RELATION TO THE SUCCESSFUL TREATMENT OF DISEASE, WITH REMARKS ON THE ORGANISATION OF MEDICAL RELIEF IN THE METROPOLIS.

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As the St. Marylebone Infirmary has already been described in THE LANCET, I next proceed to the consideration of the most typical general hospitals last constructed north of the Tweed.

THE WESTERN INFIRMARY, GLASGOW.

The most recent general hospital built and occupied in Scotland, is the New Royal Infirmary of Edinburgh; but as this was described in THE LANCET in September last (Nos. 10 and 12, Vol. 2, 1880), I have selected the Western Infirmary at Glasgow, its immediate predecessor, as a type of hospital construction, embodying most of the principles of what in Germany has been termed the "new view" of the question. Both of these institutions are excellent examples of a judicious union of the corridor and pavilion plans, so as to combine most of the advantages of the latter, with few of the defects of the former. The chief features of excellence in both are their admirable adaptation to clinical purposes, their excellent system of ventilation, the placing of a single bed in each window pier, with an abundance of floor space, for which the Edinburgh Infirmary in particular is a model for imitation. Their system of government, nursing arrangements, and internal economy generally, under the direction of a resident medical superintendent with full powers, leave little to be desired. Their chief defect is in the arrangement of the baths and closets in immediate connexion with the wards. These should have been more completely detached than they now are, for although, so long as the buildings are new and as scrupulously clean as they were at the time of my visit, no evil results will be experienced, I am by no means sure that this immunity will continue when they are old, and time has told, as it is certain to tell, in discovering the chinks in the armour of construction.

From the building fund account contained in the Report of the Edinburgh Infirmary brought down to October last, the whole outlay on the buildings and land is stated to have been £314,000, omitting fractions. Of this sum, the building proper absorbed £239,700; the site, £62,400, and the remainder was accessory expenses. The report of the year (October, 1879, to October, 1880) shows that the daily average number of patients was 469; the greatest number at any one time having been 525; the least, 208; and the average time under treatment, 31·6 days. The whole number of deaths was 436, giving a mean annual rate of 8·2 per cent. of healed. Deducting the deaths within forty-eight hours of admission, in cases brought in a hopeless state, 85 in number, the death rate was 6·6 per cent. The institution has been too short a time in existence to test its healthiness or unhealthiness in the sense attached to the term as applied to hospitals, and statistics constructed on the basis of a general average, without breaking up the figures into the details necessary for their right interpretation, can only be accepted as a rough-and-ready, but in no way scientific manner of determining the question.

The Western Infirmary of Glasgow, originally projected in 1846, was carried into effect some years subsequently, and is now in the seventh year of its practical working. It stands on eleven acres and a quarter of land, and is constructed in blocks, which are connected together by corridors, and the sick in the long wards have through ventilation, so as to be to that extent practically detached. The smaller separation wards here, as in Edinburgh, are not so favourably situated. The buildings occupy three-quarters of an acre, exclusive of the courts.

According to the published report, the whole length of the building, extending from east to west, is 460 ft., the portions running north and south are 260 ft. long. The infirmary consists of nine ward blocks, with a central portion containing the operation and lecture theatre. The blocks intersect one another in three places, and in the intersections are placed the stairs, hoists, and shoots. The medical clinical theatre is in a detached building on the western side; the washing department is in a building to the north. The hospital is designed for 400 patients, 330 in the wards and 70 in the smaller rooms, but it is intended to restrict the number of patients to 300, that particular portions of the house may be vacated and purified from time to time. It has a separate pathological department, and admits all classes of cases, except infectious fevers, for which there are exceptionally good arrangements, under the Public Health Department, in the neighbourhood of Glasgow. The nurses' quarters are also separated from the main body of the infirmary, which is placed on high ground in the immediate neighbourhood of the University to which it is attached, and has an abundance of open ground on all sides, to secure in perpetuity an ample zone of aeration. The large wards, seventeen in number, contain from fourteen to eighteen beds each, and have windows on both sides. There are smaller wards for the separation of such cases as need it. The wards are 15 ft. high and 26 ft. broad, so as to afford from 105 to 110 square feet of floor space, and 1650 cubic feet of space to each bed. The baths and waterclosets are at the far ends of each of the wards, and are extremely well constructed, but although they are not so cramped as those in Edinburgh, they do not appear to me to be sufficiently detached. The cleanliness of every part of the house at the time of my visit was simply faultless. The nursing arrangements, and those for clinical instruction, are, as in Edinburgh, deserving of all commendation, and far in advance of anything that I have seen elsewhere, at home or abroad. In both of these great Scottish institutions the fees of the students for hospital attendance are credited to the hospital, as they ought to be everywhere. The water-supply is ample and constant; the heating is by means of open fires in the wards and warm-water coils, and the ventilation is chiefly of the natural order. In the year 1879–80, 2245 patients were admitted, of whom 153 died, or in the ratio of 7·4 per cent. of all cases treated to the termination; 27 of the deaths were in cases admitted in a hopeless state, and all of them died within twenty-four hours of admission. Deducting these, the death-rate was 6·2 per cent., reported to have been the lowest in any year since the opening of the institution. The average residence in hospital was thirty-six days—40·5 for medical and 31·5 for surgical cases; the average daily number of patients having been 199·5, with a maximum of 217 and a minimum of 179. There is a special clinique for skin diseases in this infirmary, with a suitable arrangement of baths, under the charge of Dr. M'Call Anderson, similar to that introduced in University College, London, by the late Dr. Tilbury Fox. The architect is Mr. John Burnett of Glasgow.

I say nothing of the well-known Royal Infirmary at Glasgow, which has undergone several recent improvements, doubtless with success. But I am of opinion that

all attempts to bring these antique institutions up to modern standards by processes of patching, are mistakes. The only sound method of dealing with them I hold to be is to diminish the number of beds by one-half, then to utilise the additional space thus acquired in such manner as to remedy their most obvious defects, and to build small hospitals elsewhere, where they are needed, on such principles as are now accepted by all but those who decline to quit the ancient ways.

THE NEW YORK HOSPITAL.

This institution, which was opened four years since, is a striking example of how the exigencies of a restricted position have been turned to good account in the construction of a building of many stories, in such manner as to adapt it to the more recent views of the sanitary requirements of places designed for the healing of the sick. Its history was given by Professor Van Buren in an inaugural address delivered on the opening of the building in March, 1877. It consists of a main building having a block front of 175 ft. and a depth of 36 ft.; a new central wing 50 ft. long and 27 ft. 3 in. deep, and at each end of the structure a rear building containing the main plumbing for the wards, each 16 ft. 6 in. wide and 29 ft. deep, connected with the main building by a passage 8 ft. wide and 9 ft. 3 in. long. The building is constructed with a cellar, basement, and five upper stories, and the central portion and rear centre wing is carried to a still greater height to contain the kitchen and laundry.

Great difficulties connected with the foundation have been successfully overcome, and the heavy structure is without a crack.

The main entrance is in the centre of the front, the entrance for ambulances towards the west end of the building. The basement east of the main entrance is assigned to the out-patients' department, with rooms for male and female patients, consulting and toilet rooms, and the usual accessories. West of the main entrance are the principal apothecary's rooms and small reception wards. The gatekeeper's lodge adjoins the ambulance entrance, behind which are two wards and the post-mortem room, the latter having a gallery for students, well lighted. Adjacent to this is the dead-house. In the rear centre wing are two night-wards, each 13 ft. by 15 ft., a store-room, and the two wards for delirium patients. The ambulance stable is in the rear east wing, opposite the post-mortem room. A horse, ready harnessed, is always there. The cellar under the main building is chiefly occupied by the heating, ventilating, and elevator apparatus. The boiler room is placed in the courtyard, east of the ambulance entrance. There are extensive coal vaults, storage cellars, and refrigerators under the east and west courtyards.

The principal entrance is in the centre of the street façade, with stone steps leading to the vestibule and main hall, from which corridors give access to the rooms in the east and west divisions of the building. At the rear of the hall is a wide, easy, stone staircase, which, with two steam elevators, give access to the upper stories. One of these elevators is of sufficient size to contain a bed, with its attendants, and of sufficient power to raise the car with safety when crowded to its full capacity of thirty persons. The other elevator runs from the cellar to the sixth story, to carry up the *employés*, and to transmit supplies of all kinds to the kitchen and laundry. The large elevation is reserved for patients, students, &c.

THE NEW YORK HOSPITAL.

On the first floor, to the right of the east corridor, are the medical board-room, the house-surgeon's room, and a private ward; on the left are two private wards, of one bed each, with bath and waterclosets. At the end of the corridor is the children's ward, 30 ft. 6 in. long, by 30 ft. wide, containing 14,541 cubic feet. Connected with it are a nurses'-room, bath-room, lavatory, and watercloset, and a store-room for the children's clothing.

The west corridor leads to the main reception room and office. The superintendent's office, house physician's, and five private wards for paying patients, with store-rooms, waterclosets, &c., are connected with it. This corridor also leads to the pathological department, and students' gallery of the post-mortem room. At the entrance to this gallery there is an iron staircase leading to the courtyard. The second, third, and fourth stories are constructed on the same plan, and in each the central hall divides the story into equal similar parts. These contain six wards each, are 29 ft. 6 in. by 77 ft. 3 in., and 16 ft. high, and in each are twenty-one beds, which gives a

little more than 1800 cubic feet of air to each. Connected with each ward, in the centre of the building, is a nurses'-room and dining-room. To each dining-room is attached a closet and refrigerator, and it is connected with the kitchen by a steam dumb-waiter. At the extreme end of each ward is a corridor, connecting it with the end wings, which contain each a bath-room, a hot-air bath, a foot and hip bath, a lavatory, and waterclosets. All these are so separated from the wards, as to be independently ventilated. Each ward, again, has two closets for linen, and the main hall on each story is provided with closets for patients' clothing. On the street face of each ward is a broad balcony, with seats built permanently into the windows. All corners and angles are rounded to aid ventilation. The first story ward differs from the others in having bidet baths for women.

The west side of the main hall in the fifth story contains a surgical ward for nineteen beds. It is 26 ft. wide, 78 ft. long, and 16 ft. 5 in. high, and allows 1800 cubic feet to each bed. Its general arrangements are the same as for the other wards. In the centre wing of this story is an isolation ward with two beds. The capacity of the hospital, exclusive of the children's wards, is 163 beds, including the private or paying wards. Each bed is connected with the nurse's-room by an electric communicator, which may at pleasure be connected with or disconnected from a bell. The button is so arranged that it can, at the discretion of the nurse, be within reach of, or withheld from the patient. Sockets have been built into the wall behind each bed, into which metal brackets can be hooked, which swing over the beds. From these handles are suspended beneath the patient, to enable him to raise himself or change his position without assistance. The nurses'-rooms are connected with the janitor's-room on the first floor by speaking-tubes. The janitor's-room is connected with the entrance doors, the office, the private wards, the first story and basement offices, the autopsy-room, and stables, by speaking-tubes or electric communicators. Each nurse's-room is connected with the office by speaking-tubes. The ward dining-rooms have speaking-tubes connected with the kitchen.

The east side of the hall in the fifth story is occupied by the operating theatre, and rooms connected with it. This theatre is very carefully arranged, and has a top and north light supplied through 261 square feet of hammered glass.

The sixth story contains the kitchen, pantry, store-room, laundry, drying-room, and linen closets. All are provided with the most modern and complete apparatus and machinery.

The seventh story is occupied by wash-rooms, engine and blower-rooms, water-tanks, exhaust-fan blower, and disinfecting-room.

To the administrative building, directly in the rear of the hospital main building, at a distance of 10 ft. 6 in. from it, two stories have been added, which are connected with it by an enclosed bridge at the level of the staircase landing. This is also approached on the first floor by a balcony running across the administrative building, and by a bridge. The lower part of these stories contains bedroom accommodation for thirty nurses in the training school of the hospital, also the necessary offices. The rooms are provided with separate entrances and corridors, leading respectively to the rooms for male and female nurses. The upper story forms a single room, with windows on all sides and two skylights, of which that in the centre is 22 ft. by 51 ft. in size. This is used as a convalescent-room, and is divided by partitions to separate the males from the females. This room is 64 ft. wide, 90 ft. long, and 18 ft. high. It is filled with rare plants, aquaria, and means for occupying and amusing the patients; is maintained at a uniform temperature; is light, bright, and cheerful, and is a beautiful summer and winter garden, of which it would be difficult to over-estimate the value, in accelerating the recovery of the sick and injured.

The arrangements for heating and ventilation are combined, and contain several ingenious features of novelty for the admission of fresh and removal of foul air in all parts of the building with the avoidance of draughts and careful regulation of temperature. The whole is under control, and can be regulated with minute accuracy, even to the supply of each particular bed, which could, if necessary, be practically isolated. The windows in the wards are opposite to each other, and are so arranged as to supply air with the minimum draught when open. The hospital occupied two years in building, and cost 595,069 dollars. The architect is Mr. George B. Post, of Broadway, New York.

This truly excellent hospital, in the economy and perfection of its structural arrangements for an institution constructed on the multiple ward system under the same roof, is by far the most complete and perfect that I have seen in any country. Whether it will ultimately effect the object of eliminating septicæmic disease entirely from its catalogue of ills, due to local insanitary causes, remains to be seen, for it has been too short a time in effective operation to determine such a question. So far as ample space, prodigal ventilation, and the prevention of noxious agencies finding their way to the sick are concerned, everything appears to have been done which science could suggest and far-seeing philanthropy adopt. The provision of a permanent convalescent home within its own walls, attests the wisdom and forethought of its founders.[1]

Another of the recent hospitals in New York, which is on a different principle, of which the basis is the pavilion plan, is the Roosevelt Hospital—a special endowment somewhat similar in character to that of Guy's in London: it was opened in 1871. It is devoted to poor and paying patients in equal proportions, and as it is at present, so far as I know, unknown generally in Europe, it equally deserves description. In the Soldiers' Home at Washington, built under the supervision of Dr. Billings, of the United States Army, the kitchen and laundry are on the upper floor, as in the New York Hospital, and the result has been equally successful in maintaining freedom from the usual pollution of air inseparable from the operations carried on in such places. The system of heating and ventilation is also somewhat similar.

In all recent additions to the older hospitals of the United States, the pavilion plan, pure and simple, has been adopted, and nearly all the surgical pavilions are single-storied, as shown in the Sturges Pavilion of the Bellevue Hospital, of which I published an account in the *Builder* in January last. The first of these, I was informed, was constructed in connexion with the Presbyterian Hospital at Philadelphia, where there are at present two wards on this plan.

By far the most important, however, of all the hospital constructions in the great Republic is the Johns Hopkins Hospital at Baltimore, which is now not quite half built. It is the outcome of a munificent bequest, is to be attached to a great medical school, and is being arranged under the advice and supervision of Dr. John Billings. It stands on fourteen and a half acres of ground, bounded by streets on all sides, and is strictly on the pavilion plan, complete in all particulars. In it are to be illustrated all the most advanced views in hospital construction and arrangement, and it will probably still take some years to complete. Hence it will be better to defer an account of it to the period of its finishing and occupation, as changes will doubtless be made in many of the details, during the progress of the building. So far as it had gone when I saw it in September last, it appeared to me to promise to become one of the finest institutions of its kind and class in existence.

(To be continued.)

HÆMORRHOIDS OR "PILES."

BY JOHN GAY, F.R.C.S.

THE study of hæmorrhoidal swellings, or piles, cannot lead to any very satisfactory results unless based upon, and associated with, an exact knowledge of the venous system, not only as to its local or special, but its general or common, anatomy. Such a remark may be said to be trite; yet I cannot but think that there are treasures of fact concealed beneath our relatively slender and actual acquaintance with that system, both anatomical and physiological, that would, if realised, largely augment the sum of our practical resources in remedying the diseases that appertain to its various parts.

For any very satisfactory accounts of the anatomy of the vein system we have to go back to the works of Vicq d'Azyr, Walter, and Loder. Since these were published its study has gradually relaxed, so that now in our best works it is entirely disposed of in a very few pages, and the most

[1] To understand the arrangements of this institution properly needs detailed plans of every portion, for which it is manifestly impossible to find room in THE LANCET.

complex and interesting of the phenomena appertaining to the circulatory system have had the smallest amount of attention bestowed upon them, whilst the simplest have exhausted whole volumes. Without such an amplification of the means of studying these curious products—piles—neither their *raison d'être* nor the anomalies of their clinique can be fully and satisfactorily explained. Thus portal congestion and allied hepatic affections have been held to be a constant source of disturbance to the currents in the hæmorrhoidal veins, and therefore accountable for the diseases that befall them; and anatomy has been called upon to explain the etiological relationship. But clinical observation shows that the cases of piles traceable to hepatic disease are comparatively few; and in searching for their etiological antecedents the ground comes to be enlarged as we go, and with it the difficulty of tracing them to any common cause; for, as Mr. Allingham says, "they happen equally to the robust and the healthy, to the rich and the poor, the active and the sedentary," and I may add, without fear of contradiction, to the young and the old, to the abstemious as to the indulgent, and I think to the healthy as to the diseased, for I have seen them repeatedly in persons below the age of twenty who have led unimpeachable lives, and are otherwise without trace of disease—perhaps, most frequently in young married women; still, I have seen them in young people of both sexes. Gather together, if you will, the data of an extensive clinical inquiry, and, as regards *remote causes*, heritage will, I think, be found to take a very considerable part in the *rôle;* and as to *direct*, perhaps those modern usages of society which induce inaction in the lower bowels—sedentary habits, prolonged railway travelling, free indulgence in meat diet and highly alcoholic drinks, and that inattention to those calls of nature which "busy lives" are apt to disregard as of little consequence, compared with those of the mart, the field, the tennis lawn, and the ball-room, will go far to complete it. Thus modern customs have a tendency to exclude from use the means of counteracting those disordered actions and diseased tendencies which they are too apt to engender. There is no doubt, as Mr. Quain remarks, that sluggishness of the bowels aggravates, whilst their free action tends to relieve, hæmorrhoidal malady. At the same time the converse also sometimes holds good, and diarrhœa has been known to be causatively associated with its production. If we take the anatomy of the hæmorrhoidal veins, so far as it is known, the relation of dilatation of their coats to portal obstruction is, nevertheless, to some extent obvious, and certain forms of "piles" may, in part, be thus accounted for. It might, indeed, explain some, but of others, such as those limited dilatations which are usually known as "external" hæmorrhoids, it does not give so satisfactory an account. The hæmorrhoidal, according to abstract or bare anatomy, form a portion of a vast pelvic plexus, in the formation of which other veins, such as the uterine, the vaginal, the vesical, the prostatic, and the spermatic, take their respective share. Together they constitute a network or congeries, and, as it occupies the lowest and most dependent part of the trunk and is very scant of valves, it would *à priori* seem impossible that there should be any disturbance in the larger branches or common trunks, causing reflux and peripheral blood-tension, that did not involve in its consequences more or less the whole of the series; at all events, that it should affect one exclusively. And this would seem to be still more improbable as the cause of disturbance, supposing, for instance, that it should be in the portal system, is so remote from the seat as more or less completely to cover the whole series. Such is not the case; and, as a rule, hæmorrhoidal dilatations or piles are not found to co-exist with like disturbances in any of the neighbouring or even associated organic plexuses. I have not met with a case in which varicocele could be said to have been an etiological co-ordinate of piles, to whatever cause the latter may be traced; nor have I found any satisfactory evidence of the existence, with the worst forms of piles, of allied over-repletion of other vein systems. I have seen the hæmorrhoidal and the vaginal veins very largely distended at the same time through the pressure of large pelvic tumours, or gravid uterus; but this result does not contravene the principle for which I am contending, that hæmorrhoidal veins may be, and usually are, exclusively dilated or varicose. After injury to these veins, as by operations, retention of uterine, as everybody knows, is common, but it is clearly due to sympathetic and not to any compensatory act on the part of the vesical plexus. And, certainly, obstruction of the cava, below the confluence of the hepatic veins, does not produce piles, and if met in close contiguity to the heart, seems to find compensatory outlet for the pent-up streams rather in hæmorrhage from mucous surfaces, varicosity of superficial trunk veins, or general œdema; so far, anatomy simplifies hæmorrhoidal disorder.

But what are hæmorrhoids or piles? Perhaps this question should have been answered before, as well as in anticipation of, what is to follow. I will, then, just state that they may be taken to include every form of dilatation, of which certain veins are susceptible, that is liable to become permanent by pathological changes in the vein coats. And, as I shall endeavour to show, these changes are in conformity with like tendencies in certain homologous sections of the general system; and are, generally speaking, limited to two well-known forms—varix and varicosity.

Mr. Hunter seems to have dwelt on these disorders with considerable interest, as is clear, not only from the specimens that he collected and placed in his museum, but from his comments upon them. In his MS. cases in Surgery he remarks that piles would appear to be principally increased or varicose veins. "They are, however," he continues, "disease, and in this respect differ from the plexus retiform of the cavernous bodies, to which they assimilate, but only in this respect." Here there is seemingly an intuitive perception of the real nature of pile tumours, for Mr. Hunter does not appear to have gone beyond a superficial examination of them. In his collected specimens, the mucous membrane which covered the veins on which the piles are situated has not been removed in any case so as to expose them to close observation; and where they have been exposed *by section of the bowel or ulceration of the pile* they certainly do not generally exhibit that resemblance to the cavernous vascular tissue that Mr. Hunter speaks of. Lately, however, I have had an opportunity of dissecting some pile tumours, and in one or two cases have found this, what I shall term, trabecular variety. "The most singular thing," adds Mr. Hunter, "is the blood coagulating in them." In the specimen just alluded to, and in many others I have seen, the blood in the veins is coagulated. Thrombosis is, indeed, a very frequent condition of hæmorrhoidally affected veins.

The specimens which illustrate this disease in the Museum of the College of Surgeons begin with the number 1279, and are in continuity. They are well worth study.

In the first (Fig. 1, *d, d, d*) there is a circle of swellings near

FIG. 1.

a a, The cut edges of the bowel. *b b b*, Hæmorrhoidal tumours. *c c*, A circlet of such tumours. *d d*, A fold or fringe of mucous membrane. *e e*, The nates.

the extremity of the rectum, with a few more sparingly dotted about on the inner surface of the adjoining segment of the bowel. They do not extend above an inch or two in the upward direction—that is, they are limited to its lower portion. Amongst these little swellings a large vein takes its somewhat tortuous course, apparently in a direction towards the higher regions, away from that of the anal series, whilst a fringe or fold of mucous membrane, that does not invest a vein, hangs loosely from the submucous textures just above and within the anal orifice. As Mr. Hunter remarks of a similar specimen, "they (the pile swellings) stick out on the surface of the bowel like so many 'knobs,'

whilst in the interstices the soft parts shrink in as intervening septa." These pile tumours assume certain figured forms. Thus in other specimens (1778B and 1277) they range as a circlet around and protrude from the anal orifice, whilst other such circlets are formed, with free intervening spaces, on the surface of the bowel above. This tier upon tier arrangement is common, but it is usually limited to two or three such tiers, whilst the usually upper ones appear as if they had been more or less broken up and the piles thinly scattered about. They are not often met with above the area of distribution of the tributaries of the lower hæmorrhoidal veins.

The several piles forming a ring or circlet often differ in size, and of two or more such tiers those of the lowest are usually the largest and most clubbed. Mr. Quain has given some excellent illustrations of piles in his work.[1] In one, however, a bunch of pile swellings is seen protruding below the verge of the anus, whilst above the sphincter and *on the outer side of the muscular coats of the bowel*, dilated and somewhat tortuous veins are seen running upwards, as though their tributaries had passed through the sphincter and had been strangulated into pile swellings by its fibres. But Mr. Quain has given no indication of continuity between the extra-muscular veins and the intra-muscular piles, a point which I think it would be difficult by dissection to establish. At all events, I have not been able to find any evidence of such relationship. Both anal as well as rectal piles, indeed, all pile swellings, may become the seats of ulceration, which often perforates their coats, exposing loose or firm coagula within. The intra-rectal ridges or folds of mucous membrane to which I have alluded are equivalents of those hypertrophied and warty-looking dermal appendages so often met with at the anal verge. These run more or less directly or spirally up the bowel from the rectal extremity (see Fig. 1, *d*, *d*). Some are loose and floating, but others enclose large or bloated veins or tributaries. In the former case the veins that formed the folds have retreated and are seen lying along at their base. During life in certain conditions of vascular excitement such veins are seen and give trouble, and sometimes even alarm, as they run along lazily beneath the mucous membrane, at times bloated and tense, well-nigh to bursting, losing themselves, however, in the main trunks above. They are usually transient, but might become permanent through hypertrophy of their coats. Such are the forms which piles assume in life on the undissected bowel.

(To be concluded.)

CASES OF FATTY EMBOLISM.

BY C. W. M. MOULLIN, M.A., M.D. OXON., F.R.C.S.,
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IT is not a little singular that the subject of fatty embolism, which in other countries has attracted considerable attention during the last twenty years, should in England, with the most ample opportunity, have received only slight notice. In Germany there have been recorded upwards of 140 cases, in no less than 13 per cent. of which it was stated to have been the cause of death. In France Déjèrine has published[2] 12 that occurred under his own immediate notice; but in England, with the exception of a brief mention a week or two ago of its presence in a case of primary amputation, under the authority of Dr. Hilton Fagge, the only instance that I can find is that given by Mr. Southam of Manchester in THE LANCET of July 10th, 1880. Within the last few months I have succeeded in ascertaining its presence in twelve out of fourteen cases examined, of which one or two, from the peculiar circumstances under which they occurred, were almost sufficiently exact to rank as experiments. They were taken consecutively from the post-mortem room without regard to the cause of death, and consequently present a considerable variety; indeed, there is only this one point common to them all, that, with one possible exception, there was no suspicion of its existence during life. The lung was examined in all but one, the outer surface of the right lower lobe in general being selected; the kidney in all but three. The liver and spleen, for obvious reasons, were not touched, and the brain and pia mater, after two or three attempts, were given up as unsatisfactory, for it was found in the case of the former that the osmic acid solution would not penetrate a sufficient depth into its compact tissue, and in the case of the latter, especially when it was taken from the region of the medulla, the part of most interest, it was felt that there was some danger of confusion from the escape of myelin from the medulla of torn nerves. Besides, if the presence of fatty embolism could be shown in two such viscera as the lung and the kidney, there is nothing strained in the assumption that its distribution throughout the blood is fairly general.

A clean knife was, of course, used; the portions of tissue, which in the case of the lung may be of considerable size, were washed free from any blood that might be on their surface, and then placed in one-quarter per cent. solution of osmic acid for twenty-four hours, and afterwards hardened in alcohol, and cut and mounted in the usual manner.

The cases in which the presence of fatty embolism was not ascertained were two in number; the first, in which the cause of death was hæmorrhage following a wound, and in which the examination, from circumstances that I could not help, was not sufficient to prove a negative; and the fifth, acute croupous pneumonia without surgical injury. The remaining twelve were cases of simple or compound fractures of greater or less extent with the exception of the following: Case 3, pyæmia following acute periostitis of the femur, fatal on the eighth day, with pericarditis and numerous secondary deposits; Case 4, septicæmia following breaking down of fibroid tumours in the uterus after abortion; Case 6, ovariotomy, death in sixteen hours from "shock" combined with the oozing from very numerous torn adhesions; Case 8, removal of large sequestrum, death from erysipelas twenty-two days after operation; and Case 13, dislocation of the hip with much laceration of the soft textures round the joint and rupture of the spleen, fatal on the third day. Of the fractures, those of most interest were: Case 7, primary amputation of the thigh, high up, death in thirty-six hours without the patient having rallied, without rise of temperature or dyspnœa, the pulse remaining throughout small, frequent, and feeble; much post-mortem staining of tissues; Case 10, fracture of the fifth and sixth cervical vertebræ, death in sixty hours; and Case 9, fracture of the second and third cervical vertebræ with disorganisation of the cord. That the substance found under these circumstances in the form of drops intimately mixed with the blood in vessels of all sizes can be nothing but oil would be sufficiently certain alone from its reaction with osmic acid, even if it had not been independently proved by repeated experiments and observations carried out in other countries; and the same may be said with regard to the source whence it comes, for although it was at first regarded as associated in some peculiar manner with the secondary deposits of pyæmia, it has been shown clearly since that this was a mere coincidence, and that in all cases the oil is set free from the crushing of the fat cells somewhere in the periphery, especially when, as in the case of fractures, veins that cannot close are torn across at the same time. It is under these circumstances that it is found in greatest abundance, strictly in proportion to the extent of injury sustained, though occurring also when the softer textures alone are injured. From my own observations, though of course it would be absurd to formulate any general rule with regard to the frequency of its occurrence from the examination of fourteen cases only, yet, seeing that it was found in twelve, and that in the other two the examination of one was insufficient, and no surgical injury was present in the other, it may not unreasonably be admitted that the presence of fatty embolism after injury of any kind is, if not general, at least very much more common than is usually supposed; and that in the majority of cases it is not of very serious import.

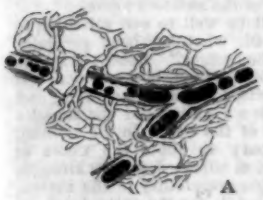
There remains the consideration of the ultimate destiny of the fat globules when once they have entered the circulation, and of the symptoms to which they give rise during their passage through various organs, two points at least as of great importance, and not yet clearly made out.

There can be no question that although the oil extruded from the ruptured fat cells may be taken up, and probably is to a slight extent, by the lymphatic rootlets in the connective tissue spaces, by far the greater portion enters the circulation through the veins, and, as Dr. Hilton Fagge among others have pointed out, in the form of drops suffi-

[1] On Disease of the Rectum. [2] Progrès Médical, 1879.

ciently large to be visible to the naked eye, formed presumably by the running together of numerous smaller ones. Carried thence into the right side of the heart and the lungs, the drops, partly under the influence of the narrowing channels in which the force of the blood stream is continually varying, partly from impact against the angles of dividing vessels, rapidly break up and become more and more minute, and thus it is that the serious consequences that may follow the impaction in an artery of a more coherent embolus so seldom make their appearance in cases of fatty embolism. That sometimes the distal end of an artery is blocked is shown by a preparation from Case 7; and this affords a reasonable explanation of the presence of embola still in Case 8, twenty-two days after operation (unless it be supposed that embolism is continually going on, or, as Scriba has suggested, that the embola in different organs are set free at the end of seven or eight days, and re-enter the circulation to form secondary ones)—an explanation that is further borne out by the peculiar appearance presented by the oil globules in this case, where they were very few in number, but large and apparently imbedded in the tissues, evidently presenting the character that gave rise to one of the earliest theories on the subject—viz., that the oil drops passed through the wall of the vessels into the surrounding tissues, and were at length absorbed by them.

FIG. 1.



A. Fatty embolism of lung from Case 10.

FIG. 2.

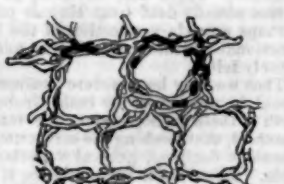
B. Artery blocked by an embolus.

The greater portion undoubtedly passes through the lung (unless, as in Case 10, where the patient died of slow asphyxia, there is some mechanical difficulty, leaving the lungs gorged and the rest of the body almost free), generally in the form of minute drops, which, however, apparently sometimes coalesce again, as they did at the first, to form larger ones. For in five or six successive sections through the kidney of Case 7 there was found one spot in which the globules were so thick as almost to give the intertubular tissue a uniform black appearance, while the surrounding parts were comparatively free, admitting of no other explanation than that some one very large drop, or two or three smaller ones, had been shivered into fragments by being driven into a second set of capillaries. As these fragments become more and more minute there is ultimately produced, round and beyond each drop, a cloud of minute black specks, still distinct and circular, and of unmistakable origin. Simultaneously the white blood corpuscles become studded with specks of similar shape and colour. Of course, it is possible that this appearance of the white corpuscles is due to particles of oil that have been absorbed from the chyle, though I have not succeeded in producing it when examining the blood of patients whose corpuscles, judging from the stage of digestion, ought to have been full; but even admitting this, the fact remains that the oil drops in passing through the capillaries are broken up into minute droplets which float about among the corpuscles, and that simultaneously droplets from which the former cannot be distinguished make their appearance in the substance of corpuscles which notoriously are capable of absorbing solid particles into their interior.

FIG. 3.

C. Transverse section through an artery containing an embolus.

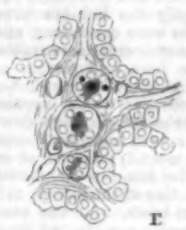
FIG. 4.



D. Embolism of capillaries.

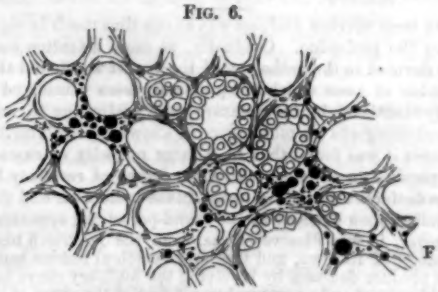
Much of the oil, however, on passing through the kidney escapes from the blood in a manner much more direct than this. It is a very old observation that the urine of patients after recent fractures presents sometimes an oily pellicle on the surface, and sections through the kidney show the way in which this comes about. Here and there sometimes in the Malpighian capsules outside the glomeruli, sometimes in the urinary tubules, were found distinct oil drops as large as a red blood corpuscle, often alone, but frequently two or three together, or accompanied by a few red corpuscles, as if the local hyperæmia had caused the rupture of a capillary. In Case 4, where the straight tubules were occupied in places by casts, oil drops were found in many of them, entangled and arrested in their course, thus affording clear proof of their at least occasional escape through the kidney.

FIG. 5.



E. Emboli entangled in casts of straight tubules from Case 4.

FIG. 6.



F. Very extensive fatty embolism from Case 7.

The clinical significance of fatty embolism has been very variously estimated. In only one of these twelve cases was there any reason to suspect its presence, and in that one, which agrees in many respects with that published by Mr. Southam, except that the extent of the injury was only half so great, the amount discovered in those portions of the organs that were examined (medulla oblongata, pia mater, lung, and kidney) was not nearly so large as in many others, notably Case 10. Scriba has pointed out the probability of the gravity of the symptoms depending on the quantity that enters the circulation and on the rapidity of its entry, and also shows that to produce a fatal effect it is necessary to inject three times the amount of fat present in the medulla of the femur, at least in the case of an animal, suggesting at the same time that it is much more probable that the ill consequences that do sometimes make their appearance are caused by embolism in the medulla oblongata. Indeed, it is conceivable that if the larger embolus that broke up in the kidney of Case 7 had by some chance reached the medulla instead, the disturbance of the circulation induced might have seriously affected some important nerve centre. I much regret that in a case of sudden death following puncture of the liver for hydatid disease, attributed to shock, in which I had the opportunity, the condition of the medulla and cardiac ganglia with regard to fat embolism, which might readily have occurred from such an injury to the liver as the passage of a trocar, was not ascertained. For it is in these happily rare cases, as yet admitting of no satisfactory explanation, that the question

of the occurrence and significance of fatty embolism assumes importance. In ordinary surgical injury it can be of little moment.

There is one point of interest to which I may briefly allude. A man was walking along the road, when a signboard blown down in a high wind struck him on the head, knocking him down. He never moved afterwards, and when brought to the hospital was found to be dead. Post mortem there was a fracture through the second and third cervical vertebræ, with disorganisation of the cord; yet there was unmistakable and abundant fatty embolism in the lungs. Unhappily the kidneys were not examined. Of course, the bones were cancellous, and contained large sinuses, and so were eminently favourable to its production; and this may have been still further assisted by extravasation from a small artery raising the pressure in the space formed by the fracture, or by the movement of the two surfaces on each other as the man fell down. But, at least, it shows that in the case of a simple fracture (and very probably in the case of a wound) particles of material size (septic or not) may be carried into the circulation within a space of time after the infliction of the injury, to be counted not by minutes, but by heart-beats, and the possibility of cases of rapid blood-poisoning receives an illustration which, perhaps, it did not require, but at least comes from a curious source.

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NERVOUS DEAFNESS.

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THE term nervous deafness was at one time much in vogue among the profession. Gradually, as more attention came to be devoted to the pathology of the ear, it was found that a number of cases which had previously been considered as purely functional in their nature were really due to well-marked changes in the middle ear. As knowledge made further advances it was found that in a large majority of cases it was possible to diagnose with some degree of certainty between deafness arising from causes in the middle ear and that depending upon changes in the sound-perceiving apparatus. Moreover, it was discovered that even the labyrinth has a pathology of its own, and that gross cerebral lesions sometimes produce deafness by involving the auditory nerve in a morbid process. As a natural result first of the abuse of the term "nervous" applied to deafness, and then of the rapid strides of aural pathology, a reaction set in, and authors were tempted to ignore the existence of functional deafness altogether.

Thus, according to Dr. Roosa,[1] "When a patient is debilitated and unstrung, unsteady in muscular movement, anxious and despondent, and is, at the same time, affected with a chronic affection of the middle ear, he is often supposed to have nervous disease of the ear. It is quite doubtful, however, if in such cases the auditory nerve is at all affected. There are certainly no symptoms of derangement of the auditory nerve in the general debility, unsteadiness, and anxiety that are popularly denominated nervousness. Affections of this nerve make the subjects deaf, and sometimes cause them to stagger in their gait, but they do not render them nervous or unsteady in the ordinary acceptation of those terms. Besides, it cannot be said that nervous people are especially liable to deafness from lesions of the labyrinth any more than they are to atrophy of the optic nerve. On this point Mr. Hinton says that it is difficult for him to accept debility, nervous or other, as a cause of nervous deafness." This paragraph may be considered to represent the opinion of a very large proportion of those who are now engaged in treating diseases of the ear. It is evident that Dr. Roosa is inclined to believe that deafness is always due to some pathological condition, and altogether to throw aside the possibility of functional impairment of the auditory nerve being a factor in its production. Now this, I think, is going too far. Possibly—nay, probably—the whole class of functional neuroses (epilepsy, megrim, &c.) have a pathology, such as it is, but in the present state of our knowledge we are content to ascribe them to unknown changes in the nervous centres, probably molecular in their nature. In this sense, then, all forms of deafness have a pathology, but I cannot help thinking that in some cases we must acknowledge our inability to discover it, and still consider the possibility of impaired hearing being due to a merely functional disturbance of the auditory nerve.

Before going further it will be well to call attention to one or two facts connected with what has been generally spoken of as the "tone of the system." Robust health is characterised by a capability for exertion, both physical and mental, exuberant or high spirits, a feeling of well-being and conscious strength. Ideas flow rapidly, and the muscles respond readily to an impulse of the will. In the morning this condition is most marked; to quote the words of Bennett,[2] "On awakening we feel refreshed, greater strength is imparted to the muscles, higher sensibility to the nerves, and greater power to the mind." On the other hand, an atonic state is characterised by more or less mental depression, lassitude, and disinclination for physical exertion. If, notwithstanding tolerably sharp exercise be taken, it causes copious perspiration and fatigue. This state of matters may exist as the precursor of some ailment, slight or severe, or it may simply pass off without its cause being discoverable, and is then spoken of as "want of tone." It seems probable that the two conditions I have described are directly due to the influence of the nervous system. There is a peculiar energy present in the nervous tissues of all animals which, for want of a better name, we call nerve power. In the nerve centres it manifests itself as a vital force from which emanate impulses of various kinds, and by which impulses are perceived, modified, or directed. In the nerve fibres its presence enables them to conduct impressions, and so to fulfil their functions. The amount of this nerve power is probably modified in various ways. Thus fatigue, by using it up rapidly, produces a diminution of its quantity, and consequently a desire for rest. A depraved state of the blood will bring about a similar result by supplying improper pabulum for the nutrition of the nervous system, and unsuitable food will indirectly produce the same effect. In the symptoms of the atonic state we have evidence of deficient nerve power in the mental depression, lassitude, and tendency to perspire, for the latter symptom is probably due to weakness of the vaso-motor centre.

Now, these facts have been alluded to for the purpose of showing that under certain conditions the functions of the whole nervous system are less perfectly performed than usual, and if this be the case there is no reason why the auditory nerve should not, under similar circumstances, be also involved. Usually an individual would not feel the slight impairment of hearing so produced. Everyone has a large amount of supplementary hearing power—that is to say, a great deal of it may be lost without causing inconvenience. There can, however, be little doubt that in a person already deaf from chronic middle ear disease, with perhaps secondary affection of the labyrinth, a very little functional disturbance of the auditory nerve would be acutely felt.

That we may have severe deafness which is purely functional is recognised by both Gruber[3] and von Troeltsch.[4] Both of these authors quote the interesting observation of Scanzoni, that leeching the cervix uteri occasionally produces transient deafness, general vascular turgescence and urticaria. These latter symptoms, be it observed, are evidently due to vaso-motor paralysis. Other factors mentioned in the production of purely nervous deafness are hypochondria, hysteria, violent emotion and acute disease. Quinine and opium too produce transient deafness, and it is interesting in relation to our subject to note the other physiological effects of these drugs. According to Ringer,[5] "opium is said to lessen the conductivity of sensory nerves, though this blunted sensibility must be due in some measure to the effect of opium on the grey matter of the brain, depressing the power of perception." Quinine we know causes symptoms of weakened nerve power, such as flushing of the face and diminished reflex action, when administered in large doses.

But it is not so much to deafness of a purely functional character that it is desired to call attention in this paper. Its existence, as already stated, has been recognised by such observers as Gruber and von Troeltsch. The question I wish to discuss is whether we may not have a purely functional

[1] Diseases of the Ear, p. 486.

[2] Textbook of Physiology, p. 354.
[3] Lehrbuch der Ohrenheilkunde, p. 622.
[4] Lehrbuch der Ohrenheilkunde, p. 531.
[5] Handbook of Therapeutics, p. 458.

element superadded to middle ear or labyrinthine deafness—in other words, to that produced by tissue change?

The late Mr. Hinton[6] was among those who are inclined to disregard asthenia of the auditory nerve as a factor in deafness. This author wrote, "Nor is it to me at all satisfactory to ascribe loss of hearing, however purely 'nervous' the affection may seem, to weakness." Yet at page 245 of the same work we are told that middle ear catarrh has in many cases its origin in nervous exhaustion from overwork, and may be relieved by rest. Again, in the report of a case of middle ear disease it is stated that "the hearing was subject to very sudden and rapid variations, apparently of a nervous character." Now, it is somewhat difficult to reconcile these statements, unless we accept the possibility of general neurasthenia producing an effect upon the auditory nerve. I cannot help thinking that Mr. Hinton's observations seem to show that, although where the hearing is perfect nervous exhaustion is seldom so great as to produce deafness, still where it is superadded to already existing impairment of hearing, it may make itself felt.

We have already seen that we may have a considerable amount of deafness depending upon nervous influences alone. This fact was fully recognised by the late Mr Toynbee,[7] and several interesting cases are described by him in the chapter of his work on Ear Disease devoted to nervous deafness. In the latter we find the following paragraph: "The variable amount of deafness in this class of cases is sometimes very marked. Thus I had for a long while a patient under my care who, when perfectly tranquil, could distinctly hear his daughter reading to him at about the distance of a yard; but if his daughter told him anything which excited his interest he became so thoroughly deaf as not to be able to hear a sound, and would remain so until the excitement vanished, when his hearing would return."

Now, this brings us to the question of the diagnosis of functional deafness, and to the discussion of the means of separating the purely nervous element from the mechanical factors.

Generally speaking, I think, the functional element must be assumed to be present when, in cases of chronic deafness due to changes in the middle or internal ear, variations in the hearing power occur, and are produced by causes which are unlikely to act upon the pathological condition already existing.

Sudden variations in the hearing power may be due to purely mechanical causes. Thus a plug of wax, by changing its position, may produce this symptom. Again, persons in whom the Eustachian tubes are more or less obstructed not unfrequently suddenly recover their lost hearing. The same patients, too, are often made worse by conditions which cause naso-pharyngeal catarrh, but in such cases we can restore the hearing by opening the tubes, and I do not believe that exacerbations of deafness from this cause can result quite suddenly. Enough time must elapse for the intra-tympanal supply of air to become absorbed. I once had occasion to enter a warm room on a frosty morning with a patient whom I was treating for deafness. The lesion in this case was narrowing of the Eustachian tubes, proliferous inflammation of the tympanum and secondary labyrinthine mischief. The first of these conditions had, however, been cured by means of the Eustachian catheter, with the result of slightly improving the hearing power. While in the open air this patient could hear words spoken in an ordinary tone quite well, but immediately after we entered the warm apartment he required a raised voice to enable him to understand what was said. The street was a quiet one, so that the explanation of better hearing in a noise did not apply. In such a case we can hardly imagine any pathological condition, either in the middle ear or labyrinth, which could possibly produce this sudden change, and we are thrown back upon the hypothesis that entering the warm atmosphere caused functional impairment of the auditory nerve.

Another case is the following. Mr. M—— ten years ago first noticed deafness. At that time he could hear with his left ear, but cannot now. Watch, right ear, $\frac{2}{36}$; left ear not at all. The tuning fork is only heard on the right side. Tinnitus of a humming character is present in both ears. Catching cold only affects the hearing slightly, but anything which upsets the general health or causes nervous depression, especially dyspepsia, produces marked increase of the deafness. The tympanic membranes were both opaque and slightly indrawn. Now in this case, while we refer the deafness from which the patient suffers when in good health to changes in the middle ear and labyrinth, we must ascribe the additional deafness which is caused by dyspepsia, &c., to functional causes. It is much easier to believe that the auditory nerve shares in the general nervous depression, or perhaps suffers more as a *locus minoris resistentiæ* than in the sudden appearance and disappearance of an additional pathological condition in the labyrinth or tympanum. Another interesting case is that of Mr. W——, who suffers from middle ear catarrh and labyrinthine affection, as shown by the tuning-fork test. He is also liable to sharp paroxysms of auditory vertigo, and after each attack hears better for a short time.

The following case is interesting, as the variations in the hearing power occurred in a medical gentleman with some knowledge of diseases of the ear. He has had repeated attacks of malaria, and has become subject to periodical deafness. He finds that any depressing influence brings it on, such as dyspepsia, an attack of fever, or facial neuralgia. The deafness is accompanied by tinnitus, and, according to the patient's observation, is identical in its character with that produced by cinchonism. When I examined this patient the tuning-fork test pointed to nerve deafness; the tympanic membranes were to a great extent concealed by hyperostosis of the bony canals; but what could be seen of them was normal in appearance without a trace of opacity. Besides, he can always freely inflate the middle ear on both sides, and during the attacks of impaired hearing this gives no relief.

We may then consider it proved that variations in the hearing powers are liable to be produced by causes affecting the general health, and that nervous depression is by no means an unimportant factor in some cases of deafness.

It remains to determine, if possible, the manner in which the state of the system reacts upon the organ of hearing. Two possible explanations suggest themselves.

1. The auditory nerve may become impaired in its function by sharing in the general nervous depression. This is probably a very important element in the production of transient increase of deafness in such cases as we have been considering. Ophthalmic surgeons recognise a form of asthenopia which is due to purely nervous causes; so, judging by analogy, we can hardly deny the possibility of a similar condition occurring in the ear. The last case mentioned seems to show that the deafness depended in this case at least upon changes in the auditory nerve or its centres, since it so exactly resembled the ear symptoms of cinchonism which we know are probably produced by the drug affecting the auditory nerve in some part of its course. Whether these functional derangements of the auditory nerve are not often or always due to changes in the blood-supply we cannot tell, neither must we in speaking of the auditory nerve exclude its ramifications in the labyrinth.

2. Of late Dr. Woakes[8] has described a form of deafness which depends upon paresis of the tensor tympani, and is accompanied by signs of palsy of the soft palate. Now, it is quite possible that in the kind of cases we are considering the tympanic muscles may share in the general atony, or indeed, suffer more as being situated in a *locus minoris resistentiæ*, and that the factors of deafness may be in part the same as in the form described by Dr. Woakes under the name of paretic deafness. While attributing the increased impairment of hearing chiefly to neurasthenia of the auditory nerve as part of a general neurasthenia, we must not forget that it may be in part due to atony of the tensor tympani as part of a general atonic condition of the muscular system.

As has been already stated, the functional element is generally present as an additional but not sole cause of deafness. Any pathological condition already existing should, if possible, be removed, and the tendency to depression produced by such conditions as dyspepsia, fatigue, &c., be obviated as far as possible on general principles. In these cases I have used the interrupted current with a certain amount of success, applying one sponge over the meatus and the other to the opposite hand. Not unfrequently this treatment alone improves the hearing very considerably. Thus in one patient the only means of treatment (with the exception of a single inflation with

[6] The Questions of Aural Surgery, pp. 153, 245, 256.
[7] Diseases of the Ear, p. 367.
[8] Deafness, Giddiness, and Noises in the Head, chap. iv. 2nd Edit.

Politzer's bag, which failed to improve the hearing) used were a gargle and nasal wash of weak salt-and-water, together with the induced current used daily as above described. At the beginning of this treatment the hearing distance was rather under two inches on the right side for a watch heard normally at thirty inches, and the tick was only audible to the left ear when the watch was almost in contact. After three days the hearing improved very considerably, and the patient could hear the same watch at three inches and a quarter from the right ear and one inch and a quarter from the left. A rather interesting point in the case of a gentleman who suffered from exacerbations of chronic deafness after fatigue &c., was that whereas before the application of the electric current he was quite unable to hear the vibrating tuning-fork by bone-conduction, immediately afterwards it was distinctly audible for a few seconds.

Edinburgh.

ACUTE INTESTINAL OBSTRUCTION CAUSED BY IMPACTED GALL-STONE.

BY JOHN WALTERS, M.B. LOND.,
AND
W. A. BERRIDGE, M.R.C.S., &c.

MRS. G——, widow, aged sixty-nine, had always been tolerably healthy; had suffered occasionally from bronchitis, and two years ago had an attack of acute recurring pain in the right side, called pleurisy, but no definite friction sound could be made out. She never was jaundiced; was in the habit of taking an aperient pill occasionally, and had lately become very stout. The patient was seized on the evening of February 2nd, 1880, with acute abdominal pain and vomiting; her bowels had acted freely during the day. When seen about 11.30 P.M. she had just vomited a quantity of dark "bilious" fluid. Pulse 72; respiration 24; temperature 98·5°. Tongue clean and moist; urine abundant, containing lithates, but no albumen. She complained of great pain in the abdomen, especially on the right side, and kept moaning, "Oh, the pain, the pain." There was no abdominal tenderness or tympanites; no swelling or lump could be felt, and there was no external hernia. The diagnosis was, "She is passing a gall-stone." Opium was prescribed, hot fomentations and brandy, &c. On February 3rd the symptoms continued; she vomited about every four hours. Before vomiting her face was sunken and distressed, and the pulse quickened to 120; after vomiting she became quite composed, and the pulse quiet. Nothing whatever passed per rectum; an enema was given and repeated, but only a very small quantity of fæces came away and a little flatus. Another enema was given on the 4th, but returned quite clear. On the 5th the vomiting began to be offensive; on the 6th it was decidedly fæcal in odour, and continued so on the 7th and 8th. During the first part of her illness she was chiefly under the care of Mr. Hallowes and Mr. Berridge. On the 6th she was seen by Dr. Holman, and opium was freely given; on the 7th matters had not mended, and it being evident that we had a case of acute intestinal obstruction to deal with, it was decided to explore the abdomen on the next day if there was no improvement. Accordingly, on Feb. 8th, or the seventh day of her illness, after consultation with Drs. Holman and Walters, and Mr. Hallowes, ether was given by Mr. Skelding at 4 P.M., and the abdomen opened by Dr. Walters with full antiseptic precautions. An incision five inches long was made in the median line from the umbilicus downwards, and the hand introduced. A hard mass was found in the middle of the small intestines obstructing the bowel. The bowel was distended above the obstruction, collapsed and empty below. This was drawn to the surface, the gut opened by a longitudinal incision along its free margin, and a large impacted gall-stone removed. The wound in the bowel was closed with a continuous suture of carbolised silk, the bowel was then cleaned and returned into the abdominal cavity. The intestines were seen to be injected and their peritoneal surface roughened. The abdominal wound was closed in the ordinary way. The patient was put to bed and given an opium suppository, and hot bottles to the feet, &c. She had afterwards a little champagne and warm water to relieve flatulence. In the evening the patient seemed to have recovered from the shock of the operation and had no more vomiting. Pulse 84; respiration 24; temperature 99°. She passed a fair night, and had no pain or tympanites. The urine was drawn off by catheter. Next morning the pulse was 120; respiration 26; temperature 99°, and she appeared to be doing well. About 2 P.M. she became rather suddenly collapsed, and died about 3 P.M.

At the autopsy next day a little recent peritonitis was found. The wound in the bowel looked healthy and was quite closed; it was about the middle of the small intestine. The liver was large and fatty; no gall-bladder could be found, but where it ought to have been the duodenum was adherent to the liver by a mass of fibrous tissue. On cutting into this some small fragments of gall-stones were seen in the duct. A ragged opening existed in the upper part of the duodenum where it was adherent to the liver. The abdomen was covered by a layer of fat three inches deep. Only the abdomen was inspected.

The points to which we would draw attention are: the suddenness of the attack; the complete obstruction; the small size of the stone to give rise to such severe symptoms; the facial aspect of the patient and the character of the pulse (*a*) before, (*b*) after vomiting; the relief after the operation; and comparatively easy death.

The reasons for thinking the obstruction was caused by a gall-stone were: the age of the patient; the sex, being a female; her sedentary habits and mode of life; previous history; and chiefly by excluding all other causes of acute obstruction. The stone will be in the museum of the forthcoming Congress.

Redhill.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. BARTHOLOMEW'S HOSPITAL.

CASES OF PLEURISY TREATED BY TAPPING WITH FINE TROCAR, AND SUBSEQUENT SLOW DRAINAGE THROUGH CAPILLARY TUBING ATTACHED TO THE CANNULA.

(Under the care of Dr. SOUTHEY.)

CASE 1. *Pleurisy with large effusion, tapping and drainage; recovery.*—Bridget H——, aged twenty-six, was admitted on Oct. 1st, 1879, and might have been discharged on Oct. 20th, for she was quite well, but she was kept in some days longer. She illustrated the treatment of pleurisy with effusion by tapping and draining, admitting no air thereby.

At the end of August, 1879, she was confined. She got up on the sixth day, and took the child to the registrar. She got tired and sat down upon a doorstep and received a chill.

On Sept. 13th she had pain in her right side, followed by cough and dyspnœa, but was able to go about and do her domestic duties up to Sept. 30th, when her breath was so short and cough so troublesome that she took to her bed.

On admission the right side of the chest was nearly full of fluid. Morphia was given to relieve the pain and quiet the cough, but while under observation to see what turn events would take, the urine diminished daily in quantity, and the temperature rose to 104° at night, though only 99·9° in the morning. The heart was but little displaced, and the dyspnœa, except on disturbance, was small. Dr. Southey therefore decided to interfere, for the patient passed only a few ounces of urine each twenty-four hours, and perspired profusely.

On Oct. 3rd, with the finest trocar, a pint of greenish serum was drained off from between the fourth and fifth ribs, on the right side in axillary perpendicular line. The urine in the following twenty-four hours increased to two pints and a quarter, thereby illustrating immediate relief of pressure.

The patient was now purged with compound jalap powder, thirty grains every four hours, in the hope of thus

draining more fluid off from her system. This was continued during the 4th, 5th, and 6th October.

Diuretics were next essayed. Infusion of digitalis, iodide of sodium, with citrate of potash were given, but the amount of dulness and increasing rapidity of respiration and the woman's aspect decided the impropriety of delaying the further emptying of her thorax.

On Oct. 6th a larger trocar was used by Dr. Barnes, and in an hour and a half four pints and a half of clear greenish serum were drained away. The dyspnœa was much relieved by the operation. Resonance was noticed in front down to level of third rib, but the woman continued to cough and expectorate more and complained of much pain from the cough. The temperature, which was for three days pretty steadily maintained between 100° and 100·8°, now fell to 98·6°, its lowest, and 99·4° its highest, in twenty-four hours. The respirations gradually sank from 45 per minute to 30 and 28. The pulse fell from 108 to 82.

From this date (October 8th) her further treatment consisted in an occasional morphia sedative when her cough was troublesome at night. A little jalap powder when her bowels were constipated for more than thirty hours.

On October 17th the respiration was recorded at 26; pulse 90; temperature, morning, 99·6°; evening 98·6°. She was allowed to get up.

On October 31st she was examined carefully; there was some flattening both in front and behind, and some sinking in under right clavicle. Good resonance in mammary perpendicular line, as low down as lower border of fourth rib, and in axillary perpendicular between fourth and fifth ribs. Behind there was resonance on percussion nearly to lower angle of scapula, and good vocal vibrations over the resonant area. No ægophony.

Note.—In answer to the question as to whether the patient should have been tapped at all, Dr. Southey said that the operation is a trivial one, attended by no risk. That the relief of a condition which cannot but be considered one of danger to life from fainting and death is instant. The circulation is at once relieved by it. The kidneys become free to act again.

Further prolongation of the lung pressure is sure to be attended by deterioration of the general health, and the conversion of a serous into a purulent effusion is rendered probable. The operation is less painful than that of aspiration, more gradual in its operation, and time is thus given for the lung to expand; tender capillaries and congested surfaces are not dragged upon by the forced vacuum.

It is not, Dr. Southey added, pretended for an instant that the thoracic cavity is thus completely emptied; but nature has a fresh chance given her, is enabled to make a new start, and in this case, as in two others, recently effected complete absorption of the effusion.

CASE 2. *Pleurisy with effusion, one month's duration, tapped and drained gradually with a fine cannula.*—Fredk. W——, aged twenty-eight, was admitted into Matthew ward on June 18th, 1881. He was suffering from considerable dyspnœa, pain over the right side of his chest, much increased by cough or drawing a deep breath, was feverish with a temperature of 102°; pulse 104, feeble. There was complete dulness over right side of chest, absence of respiratory murmur and of vocal vibrations, the side appeared slightly bulged and was motionless, and the heart's apex was a little displaced outwards by the pressure of what could hardly have been anything else than a large pleuritic effusion. With this diagnosis his history agreed entirely. He was a strongly built very powerful man, who had been in the habit of exhibiting feats of his strength in the lifting and handling of heavy weights. His account of himself was that he was perfectly well up to a month previously, when he was seized with pain in his right axilla and shortness of breath, both of which have steadily increased since that time.

The heart sounds were clear, though the pulse was feeble, and circulation was fairly well maintained; no lividity; could lie on affected side; moved himself from side to side. Slight movement brought on cough, which was spasmodic, and attended only by a little mucous expectoration. His face became much congested after coughing. There was loud resonance on percussion over left thorax; full compensatory breathing sounds, with some occasional rhonchus and sibilus heard at root of the left lung. There was loss of appetite and moderate thirst; the breath was foul smelling; the tongue coated; the bowels were open, the motions solid; urine scanty and high-coloured. His condition was watched for three days, and was no wise ameliorated by rest or treatment; and as his breathing became worse and his urine scantier, on the morning of June 21st one of the fine drainage cannulas was introduced between the fifth and sixth ribs in the mid-axillary line, after it was first ascertained that the fluid was serous by means of an exploratory prick with an ordinary subcutaneous injection syringe, to which an elongated needle had been added. Five pints fifteen ounces of somewhat high-coloured, opalescent serous fluid drained away through the india-rubber tubing attached to the cannula in about three hours and a half. The patient then had a violent fit of coughing; and as the fluid had ceased to flow, and Mr. Barnes, the house-physician, thought that the lung was possibly expanded and rubbing against the cannula, this was at once withdrawn. The cough ceased, the temperature fell to 100°, the pulse to 96. The man felt much easier; his bowels acted three times; actions loose. The chest became resonant anteriorly, but remained dull behind. Vocal vibrations were restored, muffled distant breathing sounds were heard in front, and a loud friction rub, over a pretty extensive surface, proving no inconsiderable expansion of the affected lung. He passed a very good night; his urine increased greatly in quantity, 50 to 60 ounces per diem, although his bowels were being kept loose by purgative medicine (compound jalap powder) during the following days.

On June 24th his right thorax was resonant down to the fifth interspace in front, but remained dull behind. Breathing sounds were to be heard in front, and friction laterally. Vocal fremitus could be felt in front and behind. He still had bad fits of coughing, and expectorated muco-purulent sputum in small quantity. His tongue was clear, and appetite improved.

On July 2nd distinct recession of the right side of the chest could be noticed; the right shoulder was obviously lower than the left, and the spine was correspondingly curved; there was good resonance in the right axilla, and a friction rub, as well as breathing sounds, between the axilla and right scapula.

On July 4th, 5th, 6th, and 7th he had diarrhœa, four to six motions daily, but he felt well and slept well. On the 8th his temperature fell to 99°, his respiration to 20, and his pulse varied from 96 to 76, and was still feeble and easily accelerated.

His convalescence steadily progressed, and he left the hospital on July 22nd for the Convalescent Institution with only a little general dulness over the right lung posteriorly, but with fair breathing sounds, no cough, and feeling and seeming perfectly well. The cyrtometer measurement of his thorax at the root of the nipple exhibited flattening in front and bulging behind.

Remarks by Dr. SOUTHEY.—Pleurisy with simple serous effusion does not often need operative interference, but the indications in the cases that require tapping are generally precise enough. The temperature remains high, and all the vital powers steadily decline; the appetite is *nil;* the bowels are irregular; the urine diminishes as the pressure upon the lung increases; the oppression of the circulation through the sound lung becomes greater; coughing brings on dangerous dyspnœa, and the patient may die, as they sometimes do, quite suddenly by a fatal syncope. Tapping in some way or other having become imperative for the patient's safety, the next question is how this can be done with smallest risk, least pain, and best results. Does aspiration or gradual drainage offer the best results? Is the one method attended by more risk than the other? Experience alone can decide this. Both methods offer little or no risk of the entrance of air. Aspiration has in several cases in which I have tried it been attended by considerable pain, by serious fits of coughing during and towards the end of the operation, and by subsequent reaccumulation of the fluid; whether from fault of the method of proceeding or of the patient I cannot decide. Gradual drainage, however, appears to me a preferable mode of drawing off the effusion. It is little painful, easy to effect, and would, I am sure, be often found all-sufficient for complete cure of the case.

DUBLIN CONVALESCENT HOME.—At a recent meeting of the Committee of the above proposed institution, the report of a deputation appointed to visit the grounds and premises at Cork-street Fever Hospital was under consideration. The premises are, it appears, spacious and suitable, and will accommodate when altered some sixty convalescent patients. The subject will be under discussion this week at a meeting to be held at the Mansion House.

INTERNATIONAL MEDICAL AND SANITARY EXHIBITION.

SURGICAL INSTRUMENTS AND APPARATUS.

[SECOND NOTICE.]

Messrs. Coxeter and Son have improved their fenestrated artery forceps, brought out by them in 1851, by adapting to it a very easily-worked sliding catch, which can be readily removed to be cleaned. A fine saw, suggested by Professor Lister, with the sides of the blade ground hollow, and the back kept thick, is an excellent instrument, combining great strength with small size. An angular aural polypus forceps, fitted with a delicate slide working between the blades, and giving great rigidity to the grasp of the instrument, is a serviceable improvement. A double-current rectum tube, for irrigating the rectum, and an ivory nasal speculum, on a simple slide, are good. Gowers's refraction ophthalmoscope is exceedingly compact. Mr. McHardy has adapted a tilting mirror to it. Messrs. Coxeter have introduced a great improvement upon the common spring truss. The spring has a raised groove in the middle of the otherwise flat spring, which gives it great firmness. The ends of the truss are more open than in the common form, and within a short distance of the diameter of the person. By these means the truss is much lighter than the old form, and gives very efficient support, without any tendency to pinch up the parts.

An improved oxy-hydrogen apparatus consists of an ordinary oxy-hydrogen lamp, fitted on a telescopic rod to a portable gasometer, with weighted bell which contains the oxygen. It has every necessary movement required for examination of any and all cavities; it is provided with a cell containing water in front of the lens, which absorbs the rays of heat, and by an ingenious form of double stopcock, worked by a lever, the supply of oxygen is entirely cut off and that of hydrogen nearly so, thus by an instantaneous movement the light can be alternately turned on or off, and a considerable reduction effected in the use of the gases. The supply of hydrogen is obtained direct from the nearest gas-bracket by means of an india-rubber tube. The gasometer holds enough oxygen for about an hour's consumption, but if needed, a small iron retort containing a cake of chlorate of potash can be utilised for replenishing the supply, without for a moment interfering with the light. The consumption of gas costs about 1*d.* per hour.

Messrs. Maw, Son, and Thompson have sent several batteries of excellent construction and workmanship; also a large spray for disinfecting rooms, &c., which emits vapour to the distance of twenty feet. Their rubber and elastic goods are very excellent, such as urethral and œsophageal bougies of great flexibility, polish, and softness, and rubber bottles of all sizes. They exhibit some specimens of laminaria of unusually large size and fine quality. Of their instruments, we need only refer to a lever forceps for removal of foreign bodies; a urethral scoop of good form; a Bigelow's lithotrite, with an injecting apparatus for freeing it from débris while still in the bladder; a Dieulafoy's aspirator, with double exhausting tube; and Prosser James's laryngeal instruments.

Messrs. C. Wright and Co. show a new ether inhaler, composed of the old-fashioned cone and sponge, to the apex of which is fixed a tube leading to a rubber bag, communicating with the air by another tube. The advantages claimed for this apparatus are the prevention of the waste that generally occurs with the simple cone, and the ease with which the supply of air can be regulated. Another new instrument is a small ether spray with a concealed wire which keeps the point quite clean without injuring it; it is an improvement which adds greatly to the value of the spray. Other instruments worthy of notice among the many excellent ones in this case are Davy's levers in steel and wood; Smith's case of cleft palate instruments; Pollock's pile crusher; Lee's mercurial vapour bath with porcelain top, which prevents any unpleasant smell; Fayrer's aspirator for liver abscess, which is furnished with very large trocars, each of which has a fine groove running along it for the passage of a knife-blade should necessity arise; and Benham's steam spray producer in tin and copper.

Mr. David Marr shows a good collection of what may be called Professor Lister's specialties, including some excellent sprays in which the old-fashioned spring safety valve is still retained, and fitted with a very ingenious and safe lamp; Eucalyptus gauze, chromic catgut, and an excellent sample of protective; Lister's solid bulbous-ended steel sounds, catheters with a larger curve than usual, and variously modified knives and forceps.

In addition to the dentists' instruments shown by the general surgical instrument makers, the following firms, who devote themselves exclusively to supply the varied wants of dentists, exhibit specimens of their art.

Messrs. C. Ash and Sons exhibit Shaw's improved dental engine; a universal joint in the middle of the movable arm, and a spiral spring between the handpiece and the revolving mandrel, give great lightness and ease in use. The late Mr. Napier's very simple and useful gas stand to hold fifty or a hundred gallons of the gas in the iron bottles, and Poover's mallet for fitting on the engine, to be used in place of the electric mallet, are other specialties of this firm. In addition to the general excellence of the instruments shown, we were struck by the beautiful workmanship displayed in a large number of very fine stone cut burs.

Mr. S. S. White shows an excellent dentists' chair, fitted with an oil pump, by which the chair is readily and easily raised and depressed; also a dental engine worked by water, and Dr. Webb's electric plugger.

Messrs. W. and J. Jameson have a large display of gold for fillings in every variety of preparation and shape; also a good combination of dental engine and lathe, extraction forceps with new and improved joints, and two improvements in the means of adapting plates—one a suction disc, by which they can be fixed by atmospheric pressure, and the other a new rotatory swivel to secure exact apposition with ease.

Smale Brothers show a very good plain operating chair for hospital use—a thoroughly serviceable and durable one; also an improved loose elastic pad for face pieces of inhalers, which is easily adapted, and an improvement upon those now in use. Archer's dental cabinet for instruments &c. is also worthy of special notice.

The Dental Manufacturing Co. has a very large display of mineral teeth in every variety. Their dental bracket and spittoon supplied with water, a new saliva ejector that will draw air and fluid, an operating gas bracket, an apparatus for working celluloid by dry heat and driving off its camphor very completely, and a lathe with cone head and trumpet fittings, are each and all of them excellent in manufacture and design. A new inhaler for giving gas, or gas and ether, or ether alone, at pleasure, is well worthy of notice.

Mr. Heather Bigg has sent a case of orthopædic instruments he presented to the Parkes Museum; in it we need refer to only two objects—a spinal support with a spring, rotato-lateral in direction and power, and an appliance for club-foot, with a lateral rack for equinus and calcaneus movements, a rack for varus and valgus movements, and a turn-table beneath for rotation of the foot; it is, therefore, adapted to any position of the foot.

Mr. R. R. Schramm exhibits an operating table possessing many convenient advantages, but lacking in the one great desideratum—simplicity and ease of manipulation. Among his gum-elastic goods are some useful conical rectum bougies. His universal truss, covered with webbing and green elastic, is a durable and serviceable article. He has, also, made a talipes shoe of extreme simplicity; the foot and leg pieces are connected by a modified ball-and-socket joint, loosened and tightened by a screw, the foot can be put up in any position, and the extreme simplicity of the boot will strongly recommend it. Among his other apparatus we noted a very simple and yet useful artificial arm, a novel knee clamp for cases of dislocation of semilunar fibro-cartilages; a simple support for the head for cases of disease or injury of the cervical vertebræ, consisting of a firm collar with uprights bearing a sling for occiput and chin; and two pelvic belts with improved fastenings of the springs.

Messrs. Burroughs, Wellcome, and Co. exhibit Lawton's absorbent cotton-wool, which is a very good sample.

Mr. John Carter shows his well-known articles of furniture for invalids, among which we particularly noticed the following as well adapted to answer the intended pur-

poses. A commode chair and couch with very simple and cleanly arrangement for placing and removing the pail; an obstetric and operating couch with great freedom of movement; a good carrying chair, and carrying and merlin chair combined; a Bath chair and spinal carriage, particularly well swung and without any unpleasant lateral sway, a sectional mattress by which any dependent part can be relieved altogether from pressure, and an exercising chair to simulate horse exercise in particular.

Messrs. Pocock exhibit their excellent tubular bed—a very simple contrivance by which any part of the body can be raised and relieved from pressure at will; a recent improvement is to have the taps so made that the tubes can be filled with either air or water. They also show a model of a very durable and comfortable ground bed of stout rubber cloth, and another model of a padded room in which the floor is made perfectly water tight, and the walls are formed by movable panels. Some moulded chambers have just rigidity sufficient to support the weight of the body, and yet are compressible and so harmless. Several smaller articles of daily use in lunatic asylums, such as locks for boots and dresses, straps, &c., are shown.

Messrs. James Allen and Son have on view some of their steam sprays, which are simple, cheap, very efficient and durable if intelligently used. Also food-warmers and bronchitis kettles of various descriptions, one of which can be used for heating fomentations at the same time.

The elastic goods of *M. P. Bourjeaurd* are particularly well manufactured; they are made of spiral coils of silk or cotton webbing, united by hand in such a way as to permit of ventilation everywhere. Among elastic stockings he shows some of different strength in different parts, so that the pressure can be exactly adapted to the local requirements. The webbing is made in certain definite numbered strengths; from their make any part can be easily altered or renewed. Excellent suspenders, a belt and hypogastric pad, and some belts with air pads for femoral and inguinal hernia are very comfortable and efficient. All the goods in this cabinet are made of the same excellent elastic webbing, and are well worthy inspection. The Bijou respirator is a curved plate of tortoiseshell, along which runs a shallow groove for the reception of medicated cotton-wool. This is kept in place by a small slide and the shell placed between the lips and teeth. The air inspired by the mouth is thus rendered aseptic.

In addition to his excellent pharmaceutical preparations, *Mr. Martindale* shows a very simple and cheap form of inhaler, a throat insufflator, an ear and nasal syringe, and all the chemical requisites for Listerian treatment of wounds. All are good.

Young's Paraffin Light and Mineral Oil Company exhibit some excellent specimens of paraffin for the preparation of splints, also some good examples of splints made from it, which are light and useful. Some coloured paraffin for models, &c., equals wax for this purpose in all its features.

Mr. W. H. Lloyd makes the common plain bronchitis kettles and inhalers, but adapts copper bottoms, tinned on the inside, to the boilers, and so obtains greater strength and durability.

Messrs. J. B. Sceley, of America, have sent over samples of their trusses of various kinds, all made of rubber. The material when cold is firm, sufficiently elastic with a hard polished surface, durable and not brittle, and if gently warmed it becomes softened to an extent that allows of its being readily moulded to a suitable shape; these are properties that may prove of great service.

Mr. T. McIlroy, also from the United States, is the patentee and exhibitor of some very ingenious articles. We were specially struck with an operating table of firm construction, easy manipulation, and great adaptability to the many positions required by surgeons while operating; an operating chair admirably suited to its purpose; a self-wheeling chair of great lightness and ease of motion; a carrying chair, which collapses into very small compass, and a post-mortem table, with very delicate beam weighing-machine.

The various splints and apparatus exhibited in the hospital wards do not afford matter for lengthy comment. In many cases the splints are those in general use, and too well known to merit special mention. It is interesting to note the varied means of attaining one end, especially illustrated in the matter of extension of the lower limb, for which much simpler means are employed at some hospitals (as King's College) than at others (as the London). We would call special attention to the simple extemporised means of putting up a fracture shown on the left leg of the St. George's Hospital dummy; to the illustration of the use on the field of battle of the triangular bandage sent by the Army Medical Department; to the ice-bag for the knee from King's College; and to the cot from St. Mary's, with the Queen-square armlets for keeping children flat on the back.

Mr. Cocking's display of splints and corsets illustrates well the various uses to which his excellent plastic felt can be applied; demonstrations of its mode of preparation and use have been arranged.

Messrs. Southall Brothers and Barclay exhibit their excellent antiseptic and absorbent pads, sheets, and bandages; their prepared millboard splints, very convenient; and hospital strapping, which is pliable, adhesive, and cleanly; tenax, a very cheap, simple, and efficient dressing, possessing considerable antiseptic properties; the ladies' sanitary towel, made of absorbent cotton-wool, impregnated with boracic acid, a great improvement upon the usual diapers.

Ophthalmology is scarcely represented in the Exhibition in proportion to its importance. There are, of course, plenty of surgical instruments, and legions of ophthalmoscopes of every degree of ingenuity and utility, but few strictly scientific apparatus for the investigation of the diseases of the eye or the disorders of vision.

Messrs. T. Cooke and Sons, of York, exhibit a very ingenious instrument, designed by Dr. Tempest Anderson of that city, for estimating objectively astigmatism. An account of this instrument was published in THE LANCET for September 18th last.

Messrs. Pickard and Curry show, among other optical appliances, Javal's optometer and Mr. Tweedy's optometer for estimating astigmatism (see THE LANCET, October 28th, 1876) with the latest improvements, and an elaborate modification of the same by Mr. John Couper.

Mr. Pillischer, of Bond-street, *Messrs. R. and J. Beck*, of Cornhill, *Messrs. Krohne and Sesemann*, of Duke-street, and *M. Nachet* of Paris, exhibit several convenient and complete cases of trial lenses, arranged according to the metrical scale.

Several firms show specimens of artificial eyes, of which those by *Messrs. Marratt and Ellis* and *Mr. Pillischer* deserve special mention.

There are no Aural instruments in the department beyond those in ordinary use, unless we except a nasal pad adapted to Politzer's inflating bag, which does not appear to possess any advantage over that introduced by the late Dr. Allen, and to which his name has since been attached. The prizes (the first being accorded to Messrs. Weiss, and the second to Messrs. Wright, of Bond Street) were therefore evidently given for excellence in workmanship. It is noticeable that amongst the Eustachian catheters none are provided with the bulbous ends at that portion of these instruments which is introduced into the nostril; and, with one exception, no vulcanite catheters are exhibited.

It would be extremely difficult, if not impossible, to form a complete collection of the Obstetrical instruments which have been or are used in the practice of midwifery and gynæcology, because there is probably not a single instrument employed in this branch of the profession which has not been altered, in many cases more than once—for better or for worse—subsequently to its first introduction. We find, however, in the collection now exhibited at South Kensington a fair representation of the instruments now used in the practice of obstetric medicine and surgery; and we would direct particular attention to the cases of Messrs. Arnold and Son, Mayer and Meltzer, Weiss and Son, Wright and Co., and Hilliard and Son, of Glasgow—for they contain the largest collections of instruments belonging to the class under consideration, and of the best and finest workmanship. In the cases of some of the other best makers, among whom may be mentioned Messrs. Coxeter, Ferguson, Marr, and Matthews, most of the space is devoted to instruments used in surgery, while the space given to those employed in obstetric medicine is very limited. For some years past the study of the construction and use of the obstetric forceps has been pursued with renewed energy and zeal; and no little time, labour, and talent has been devoted to perfecting the instrument. This energy has been

directed more especially to the perineal curve, and the direction and method of applying traction. The idea of the perineal curve is not new, though for years it had been almost entirely overlooked. Some years ago it was revived, and Dr. Aveling has been for a long time a steadfast advocate of the third curve of the forceps. The main impulse to the study of this subject was, however, given by Professor Tarnier when he introduced his now well-known forceps to the profession. The chief though by no means the only peculiarity of this instrument is that steel rods called tractors are attached to the blades of the instrument in such a manner that the extracting force can be applied directly and readily in the axis of the brim, or of any other part of the pelvis. There are excellent examples of Tarnier's forceps to be seen in the cases of Messrs. Krohne and Sesemann, Hilliard, Matthews, and Weiss. Since the introduction of this instrument practitioners have been busy in improving, or, at least, altering it. Dr. Alexander Simpson has had tractors attached to the blades of an instrument similar to the forceps of the late Sir James Simpson, while Dr. Lyon has attached similar tractors to a long forceps made after a different model. Examples of one or both of these may be seen in the cases of Messrs. Hilliard, Krohne and Sesemann, Matthews, and Weiss. Besides these there are forceps with perineal curve, which are intended to effect the same object as Tarnier's, but in a simpler manner—that is, to enable the operator to make traction directly in the axis of any part of the pelvis. Of these Dr. Aveling's is the best known, and specimens of it are exhibited by Messrs. Weiss, Mayer and Meltzer, Marr, and Wright. Dr. Galabin's forceps is another of the same class. It is shown by Messrs. Millikin and Down.

Messrs. Hilliard and Sons have attached a movable rigid bar at right angles to the handle of a long double-curved forceps as a tractor, and show a specimen of this instrument. They also exhibit examples of forceps with unequal blades and curved handles. There are besides excellent examples of many forceps in general use in this country, as those of Barnes, Duncan, Simpson, Ramsbotham, Leishman, &c., shown by several of the exhibitors mentioned.

The craniotomy instruments exhibited are those in general use. The various forms of perforators and craniotomy forceps are shown, but do not call for further notice. Two cephalotribes are exhibited, those of Braxton Hicks and Kidd. They may be seen in the case of Messrs. Weiss and Son, and the former may also be found in the cases of Messrs. Arnold and Sons, and Messrs. Maw, Son, and Thompson.

Messrs. Krohne and Sesemann show an interesting instrument but little known and little used in this country—Van Huvel's forceps saw. It consists of a large massive forceps having a chain saw running in a groove in the blades and handles.

Among the gynæcological instruments exhibited we notice several recent inventions or modifications.

Specula of all kinds are shown, uni- bi- tri- and quadrivalvular, tubular, fenestrated, and wire. *Messrs. Matthews* show their modification of Ferguson's speculum, in which the covering is made of woven material coated with gum, whereby the risk of breakage and consequent injury is greatly diminished. Roper's and Barnes's modification of Neugebauer's are shown, and various modifications of Sims', the best of which perhaps is that in which it can be separated into two parts and used as Neugebauer's.

Messrs. Wright and Co. show McClintock's forceps, a sort of clamp for holding the pedicle of a tumour temporarily. They also show a placenta forceps made on the principle of the revolving obstetric forceps, and a lever ovum forceps.

Messrs. Krohne and Sesemann exhibit a "curvimeter" by Dr. Cuthbertson Duncan, the use of which is said to be to measure the degree of flexion of the canal of the uterus. We may safely say it is ingenious, but cannot vouch for the accuracy of its register or its usefulness.

There is a variety of elastic abdominal and pelvic belts shown by *Mr. Russell* and *Mr. Bourjeaurd*. We would direct particular attention to those made by Mr. Bourjeaurd, as being remarkably ingenious and perfect. They consist of elastic webbing about three-quarters of an inch in width, which is folded in a spiral manner around the body, each fold being sewn to that before and that after it. In this manner a most accurately-fitting belt is obtained, and increased pressure can be applied to any part by means of an elastic air-ball.

We now come to the subject of pessaries, but it is one which calls for no further remark here than this: that a material named xylonite has been introduced into the manufacture of these instruments, and that this material is light, clean, and when heated can be readily moulded into any shape desired. Several pessaries made of it are shown. There is an enormous variety of them exhibited, and if we are to regard it as an index of the number of women who go about carrying a foreign body in their pelvis, the fact is perfectly appalling.

The collection of Microscopes and microscopical appliances represents very well the direction in which progress has been made of late years, both in quality and in cheapness. Several of our best known English makers are represented, and all without exception now produce small working microscopes, by far the most useful for histological research. We may be permitted to express a little disappointment at the paucity of foreign exhibits in this department; for there is no denying that it was mainly the introduction of the Hartnack model that initiated the revolution in style of microscopes for anatomical purposes, and we could well have wished that the leading continental firms had been as ready to come forward with their productions as the English. It would have afforded an opportunity of demonstrating that this country can hold its own in a department where careful and fine workmanship is so essential, and it would also have been of additional advantage in giving our manufacturers the opportunity of seeing how foreign work is turned out. The only foreign exhibit—and that a very complete one—is by *M. Nachet*, of Paris, whose case contains all his chief models—from a small portable folding instrument and dissecting microscope to his larger binocular form. None of his instruments, however, show so much elaboration in the stage and sub-stage fittings as the English makers, and herein apparently the latter certainly show greater ingenuity. For ordinary histological purposes such additional complications and ingenious devices are not essential, and they of course add largely to the cost of the instrument. Particular attention may be given to M. Nachet's new microscope with reversed tube, whereby the under surface of the stage is placed in the field; and a small instrument on the same plan is adapted for the examination of chemical solutions &c., where evaporation would embarrass the view if examined in the ordinary way. The only other continental maker whose work is shown is M. Hartnack, two of whose well-known instruments are exhibited at the stall of Mr. Marr, his London agent; their prices being £10 10s. and £8 5s., with three and two objectives respectively.

Mr. Pillischer shows his International Microscope, which is fitted with rack and pinion coarse adjustment, and a micrometer fine adjustment. It is a useful instrument, and will bear objectives ranging from a 4-inch to $\frac{1}{25}$th inch. It can also be fitted with a glass stage. The same firm show a combined monocular and binocular microscope, and others of more elaborate construction, with mechanical stages revolving by the hand, and furnished with rack and pinion for other movements. There is, too, a good sub-stage arrangement. They also show numerous microscopical fittings and appliances, including Hoggan's section-cutter for soft and hard tissues.

Messrs. Ross and Co. have a new student's microscope, with sliding tube for coarse adjustment, and frictionless fine adjustment. The stage is of glass, and rotating. They also have some of their better known larger instruments furnished with stages, which admit of a complete revolution, and in which the milled heads for the other movements are placed on the upper surface instead of the side of the stage. There is a swinging sub-stage, carrying the mirror and condenser, and an iris diaphragm, formed of six plates, and so constructed as to always give a circular aperture.

Messrs. R. and J. Beck, of London and Philadelphia, have a small histological microscope, which is a marvel of cheapness—viz., £4, with a one-inch and quarter-inch objective; furnished with rack movement its cost is £6 10s. A slightly larger instrument, similar to the last but supplied with a swinging sub-stage, is their "Economic" form. Most of these have glass stages. The same firm have several large first-class instruments, elaborately fitted with every accessory.

Mr. Crouch shows a very useful and simple student's microscope, with glass stage and frictionless fine adjustment, which is sure to be much appreciated. He has also a very excellent binocular and monocular combined microscope, which has met with much favour.

Mr. Swift has some excellent instruments for histological work, fitted with a fine adjustment which has a spiral thread, and is worked independently of the body of the microscope, like the coarse adjustment. An ingenious instrument is the portable binocular, which can be completely folded up and packed into a small space, and on the same plan he has a pocket clinical microscope, which meets a distinct want. Mr. Swift's saucer-shaped diaphragm may be indicated as one of his numerous ingenious specialties, and we were shown also a swinging sub-stage, bearing two condensers so arranged that if necessary two pencils of light can be made to converge on the object. A useful telescope folding lamp shown by the same exhibitor is worthy of notice.

Messrs. Pickard and Curry have brought out a "medical student's" microscope, which is a useful instrument, and they show also a large binocular fitted with large revolving stage.

It will be seen that we have been unable to attempt a comparison between the microscopes, for that is obviously impossible without the opportunity of working with the instruments themselves, and no arrangements have been made whereby the instruments can be inspected as to their working capabilities. Such a comparison will have been made by the judges, whose report will convey a more accurate idea of the relative merits of the instruments; but we cannot leave this department without a word of commendation for the very evident anxiety shown by the makers to avail themselves of every opportunity to render their instruments complete and satisfactory. To take only one example, that of the fine adjustment, one of the most essential parts of a microscope and one where it is most likely to show points of weakness; the amount of attention that has been paid to perfecting this one feature is very striking, and the same might be said of the other parts of the instruments. In closing this notice mention should be made of the serviceable "microscopic companion" exhibited by Mr. Newland. It consists of a box containing all the requisites for histological work, and may be especially recommended to medical students, whose attention might also be drawn to Mr. Newland's remarkably cheap cabinets for slides. In another part of the building a collection of microscopical sections of the medulla and spinal cord of man and animals is exhibited in an effective manner in a large glass screen. They are contributed by Dr. Gimbatti Laura, of Turin.

DRUGS, PHARMACEUTICAL PREPARATIONS, FOOD, MINERAL WATERS, ETC.

[SECOND NOTICE.]

Messrs. H. and T. Kirby and Co. exhibit specimens of their phosphorus pills, which have long been familiar to the profession, and are in every way superior to the hard and insoluble pill so unadvisedly introduced into the Pharmacopœia in 1874. Specimens are also shown of glycecols, or glycerine jellies—a form of lozenge adapted for throat and pulmonary affections. The glycecols of guaiacum and of red gum are excellent, whilst the glycecol of cubebs will find favour in cases in which Brown's bronchial troches have been used. The glycerine jujubes, made without sugar, will serve to allay the distressing dryness of the mouth and throat from which diabetics so frequently suffer; they are pleasant to the taste, especially those flavoured with orange or lemon. This firm has recently introduced a thymol powder for the toilet and nursery; it has an agreeable odour, and, containing as it does a small quantity of oxide of zinc, is likely to prove of service in checking excessive perspiration of the hands and feet.

Mr. Martindale's collection is remarkable for novelty and originality. Care has been taken in the selection of articles for exhibition, and almost everything shown is new. First and foremost there is an antidote bag made at Dr. Murrell's suggestion, for use in cases of poisoning. It contains a stomach pump, also available for enemata, various emetics, stimulants, and antidotes, both in the solid and liquid form, and solutions for hypodermic injection of strychnia, morphia, apomorphia, atropine, and pilocarpine. It is sure to attract attention. Then there are two inhalers—the "portable" and the "poor man's," the latter costing only two shillings. Different modes are exemplified of administering nitro-glycerine, a remedy which of late has been largely used in the treatment of angina pectoris. The one per cent. alcoholic solution is well adapted for ordinary use, but the tablets are more convenient for patients who are confined to the house. We have given both preparations a careful trial, and are satisfied of their activity and utility. Nitrite of amyl and iodide of ethyl capsules are shown, the former being used in sea-sickness and angina pectoris, and the latter in the dyspnœa of bronchitic asthma. Then there are pastils composed of gelatine and glycerine, and made according to the formulæ of the Throat Hospital pharmacopœia. They can be medicated with anything not containing tannin. The iodoform and the bismuth pastils are excellent. We would suggest that this affords a convenient mode of administering croton chloral hydrate, the taste of which is extremely disagreeable to most people. The granular effervescent sulphate of soda and magnesia resembles in its action the Hunyadi Janos, Pullna, and Friedrichshall waters. The plastic pilules with transparent coating are excellent. They are so small that they can be taken without difficulty; the pill mass is not hard, and is uniform throughout. Mr. Martindale also exhibits an interesting collection of rare drugs, including anemonin, aloïn, caffeine, coloïn, daturine, eserine, and picrotoxine.

Messrs. Merck, of Darmstadt, show specimens of hydrastin, resorcin, aspidospermin, digitalin, homatropin, and other drugs, all of their own manufacture. They are undoubtedly excellent, and it is to be regretted that they should not have been exhibited in a form more likely to attract the attention of visitors and admit of a closer inspection. They are arranged in a case in which they do not show to advantage.

Messrs. Burgoyne, Burbidges, Cyriax, and Ferriers show a number of new drugs introduced by Messrs. Parke, Davis, and Co., of Detroit, Michigan. Thus we find specimens of grindelia robusta, one of the new remedies for asthma, of damiana, which is said to work wonders in impotence, of cascara sagrada, which cures habitual constipation, of rhus aromatica, a powerful diuretic, and many others. They also show specimens of their nitro-glycerine pills, varying in strength from a one two-hundredth to a twenty-fifth of a grain. They are all sugar-coated, a disadvantage when an immediate action is required, as in the paroxysm of angina pectoris. The empty capsules for the administration of nauseous medicine are excellent. This firm also shows specimens of coumarine, the active principle of tonquin bean, and of vanilline, both prepared artificially.

Messrs. Warner and Co. enthusiastically advocate the merits of their permanent and soluble sugar-coated pills, which they maintain are superior to all other preparations. Their parvules are elegant in appearance, and are sure to be favourites with children. We have tried several varieties, and find that they are active. They are put up in pocket-cases, each containing twenty varieties, a convenient form for practitioners in the country. It should be remembered that the doses are small, and will have to be frequently repeated. The ingluvin of this firm is favourably known, and has a high reputation in the vomiting of pregnancy. The aromatic cachous give an agreeable odour to the breath, and will be popular with smokers.

Messrs. Macfarlane and Co., of Edinburgh, exhibit a number of antiseptic dressings, prepared in accordance with Professor Lister's instructions. The boracic lint, carbolised lint, and salicylic jute are excellent. They also show magnificent specimens of codeia, meconate of morphia, and aloïn.

Messrs. Morson and Sons have a small and select exhibition of drugs, which includes benzoic acid, bromide of potassium, and iodide of potassium.

Messrs. Gale and Co. exhibit a large collection of barks, syrups, tinctures, extracts, &c., which, although very good, present no great novelty.

Messrs. Evans, Lescher, and Webb exhibit "Fossiline," a new basis for ointments, porous plasters spread on "leatherine," and an improved corn-plaster. Their materia medica cabinets are well known, and are useful to medical and pharmaceutical students in preparing for their examination.

Messrs. Roberts and Co. show a collection of French specialties, including different forms of enema apparatus, urethral bougies, and various preparations for the treatment of gonorrhœa and gleet.

Messrs. W. H. Schieffelin and Co., of New York, show an almost empty case, having lost their exhibit in the *Britannic*. Their speciality is sugar-coated pills.

Several preparations of extract of malt and of maltine are exhibited, the most noticeable being those whose merits are advocated by the *Maltine Company*, and by *Messrs M. and Leopold Hoff*. They are all good and deserve a trial. The malto-yerbine is said to have been found useful in the treatment of consumption.

The *Chesebrough Manufacturing Company's* vaseline is so well-known that it would be superfluous to dwell on its merits. It has steadily made its way in the estimation of the profession, and has almost entirely replaced lard as a basis for ointments.

The exhibition of foods is not a large one, but many of the preparations are of high value, and will repay a careful examination.

Messrs. Savory and Moore exhibit several varieties of food for infants and invalids. Darby's peptonized meat is well adapted for those who from worry or anxiety or overwork are unable to digest solid food. It is of great value as a restorative agent, especially when given in the form of gravy soup. The food for infants is also an excellent preparation, and is a decided improvement on Liebig's. It is difficult to say whether the pancreatic emulsion should be regarded as a food or as a medicine, but that is a matter of very little importance; it is undoubtedly useful in many cases of dyspepsia and in some forms of phthisis. The patient should be ordered a teaspoonful or more twice a day in a tumblerful of milk with a tablespoonful of brandy in it. It should be taken an hour or two after meals, and for those who dine in the middle of the day it may be given at 11 and 4, so as to replace early luncheon and tea.

Mr. Bonthron, of Regent-street, exhibits specimens of diabetic bread and biscuits. There are several varieties, some being made from bran, some from gluten, and others from almonds. In addition there is a diabetic powder, which, as it has already been thoroughly cooked, may be at once applied to thickening gravies, soups, and other food.

The preparations associated with the name of *Van Abbott*, of Princes-street, Cavendish-square, are so well known that they need no detailed notice. The bran powder, the bran biscuits, the gluten bread, and the diabetic cocoa are excellent, and are a great boon to those who have to live on a restricted diet. The acorn coffee, for children and invalids suffering from indigestion and "torpidity of the liver," is sometimes used with advantage. The hypophosphite of lime biscuits are frequently recommended for weak and rickety children.

The *Aylesbury Dairy Company* shows specimens of koumiss, whey, peptonised milk, and artificial human milk, and opportunities are afforded of tasting all four preparations. The koumiss is an excellent drink, and has been extensively patronised by visitors during the week. It is agreeable and refreshing, and has been found of value in cases of chronic vomiting, dyspepsia, and gastric pain and irritation. It is readily digested, and is well adapted for those who suffer from biliousness. The artificial human milk is prepared by a special process, and will undoubtedly be found of value in the nursery. It should be remembered that it will not keep sweet longer than ordinary milk—that is to say, from twelve to twenty-four hours, according to the state of the atmosphere and the care bestowed upon it.

Messrs. Chapman and Co. call attention to their koumiss or sparkling milk wine, of which there are five varieties or modifications. These are "full" koumiss, "medium" koumiss, "whey" koumiss, "diabetic" koumiss, made with or without glycerine, "sparkling bland," and "koumiss extract." The first, second, and third varieties are further divided into three states or periods, which refer to the age of the preparation. The ordinary dose is a tumblerful three or four times a day, but there seems to be no limit to the quantity that may be taken.

Messrs. Corbyn, Stacey, and Co. are the London agents for Valentine's meat juice. This preparation has now been in use for nearly ten years, so that ample opportunities have been afforded of testing its merits. It is the real juice of meat expressed by powerful hydraulic machinery. The two-ounce bottle contains the concentrated essence of four pounds of the best beef, exclusive of fat. The dose is from half a teaspoonful to two teaspoonfuls, diluted with cold or tepid water. It may be iced, but it is better not to warm it. It may be used in all cases of severe illness where ordinary food cannot be taken, and is equally useful for adults and children. Stale bread crumbled into the meat juice forms a savoury diet, which may safely be given to convalescents from typhoid fever.

The preparations of *Messrs. Brand and Co.*, of Stanhope-street, Mayfair, are always good. The essence of beef is best known, but the essences of mutton, veal, and chicken are all good. The turtle soup and turtle jelly are capital for a change. The savoury meat lozenges contain a great deal of nourishment, and are by no means unpalatable.

Delacre's Extract of Beef is another candidate for public favour, and is used for making gravies, sauces, soups, and a variety of dishes, and for similar purposes. It is prepared in South America; and especial care, it is said, is taken in the selection of the materials. Every visitor to the Exhibition is presented with a sample, with full instructions for use, in order that an opportunity may be afforded of testing its merits.

Lloyd's "Universal" Food is recommended for infants, children, and adults, both in health and sickness, and may be taken either for breakfast, dinner, or supper. It is said to consist of the finest selected grains and pulse combined with the active constituents of pure fresh malt meal. A more extended trial will serve to develop its capabilities.

Lactrose is a preparation of wheaten grain, so modified as to form a substitute for human milk. To a tablespoonful of the powder is added gradually, whilst stirring, half a pint of boiling water, or enough to make the mixture of the desired consistence. Lactrose No. 2 possesses the same general characters, but is intended for adults. It is recommended for mothers while nursing, for young people of delicate constitution, for convalescents from fevers, and for children suffering from rickets or scrofula.

The Burroughs' Beef and Iron Wine is a food and medicine combined. A tablespoonful in a little water is an excellent tonic for town dwellers and those of weak digestion.

Lactopeptin is a digestive agent containing, it is said, pepsine, pancreatine, diastase, lactin, and lactic and hydrochloric acids. It is a popular preparation, and numerous testimonials are advanced in proof of its efficacy.

We are unable in this part of our report to notice the various mineral waters and non-alcoholic beverages which are largely represented in the Exhibition. These must form the subject of a future report.

ARCHITECTURAL PLANS.

The plans of hospitals, either constructed or projected, are of considerable interest. That which will attract most notice from its novelty is the plan exhibited by Mr. Saxon Snell for a hospital for 700 patients, constructed with circular wards, according to the suggestion put forward by Prof. John Marshall a year or two since. The general plan of Mr. Snell's hospital is a semicircle with seven rays projecting from its circumference. At the end of each ray is a ward tower, each tower containing three circular wards capable of accommodating thirty-two patients each. Mr. Snell gives no elevation; but from the plan of the building we question whether the ventilation of the six areas enclosed by the rays and administrative semicircle would be at all efficient. It is essential that the whole of a hospital area should be swept by the wind, and we doubt whether this end would be attained by Mr. Snell's plan. Each ward is 70 ft. in diameter, and rather more than 210 ft. in circumference; so that each bed has about 6½ ft. of circumferential wall, and allowing 3 ft. for the width of the bed, only 3½ ft. remain as the average distance between the heads of the beds, and this distance is often much less owing to the fact that from architectural necessities the beds are not equidistant. Now, the area of one of Mr. Snell's wards amounts to about 3748 ft.; so that each patient has about 117 square feet of area, which in an ordinary oblong ward would be ample, and in a long ward of average width, say 25 ft., would allow a length of some 9 ft. of wall for each bed. It comes to this, therefore, that with equal areas you can easily give nearly twice as much space between the heads of the beds in a long ward for thirty-two patients as you can in a circular ward with the same accommodation. If we remember rightly, Mr. Marshall insisted that circular wards were not adapted for more than about eighteen patients, and Mr. Saxon Snell is, we think, ill

advised in trying to place nearly twice that number in his wards. It is certain that a 3-foot interval between the beds is far too little. Area in the abstract is not all that is wanted to make a bed wholesome. The area must be of the right shape also.

The advantage claimed for circular wards is that the greatest area is in this way enclosed by the least amount of wall. But is this an advantage? We think not, and are of opinion that what is wanted in a hospital is something like the reverse of this—viz., the enclosure of the smallest area by the greatest amount of outside wall, so that when the window is opened the outside air may most readily reach every part of the enclosed area. It is, we think, tolerably certain that it must be easier to change the air in a ward 25 ft. wide than in one having a diameter of nearly three times this amount. The cost of a building is in proportion to its cubic contents, and circular buildings are acknowledged to be the most expensive of any, so that each cubic foot contained in a circular building would cost more than that contained in a rectangular building. Mr. Snell's wards have a central shaft for fireplaces and flues, the sanitary offices project from one side, and they are connected on the other side by a corridor with the administrative semicircle. These projections from the towers would necessarily check the rush of wind; and it is obvious that, even without these projections, the *direct* impact of the wind upon any part of the circular ward must at all times be a minimum, and even the *oblique* impact of the wind would be less in extent on the circular than on the rectangular building. The value of direct impact of the wind on ventilating inlets for air-flushing purposes is not to be despised. It is evident that the necessity of a central shaft in these wards would seriously interfere with their adequate supervision by the nurses in charge. Again, every patient's face as he lies in bed would be about 30 ft. from the radiating stoves; and as the heat obtained from a radiating source is inversely as the square of the distance, the warmth which would reach the patients would be a quantity capable of appealing to the imagination merely.

There has of late years been a most encouraging concurrence of opinion as to the best shape for a hospital ward. Miss Nightingale, Parkes, Capt. Douglas Galton, and the builders of the modern French hospitals, as well as Dr. Billings, the adviser of the Johns Hopkins trustees, at Baltimore, have all given in their adhesion to the rectangular form with a width of from 25 to 30 ft. We do not think that this design of Mr. Saxon Snell's will materially affect the fixity of opinion on the proper shape of hospital wards which, prior to the suggestion of circular wards, we were apparently approaching.

Mr. Francis E. Jones has sent us a description of drawings of a hospital on the circular ward system, by which he claims to show the superiority of this system for hospitals on a confined and enclosed site. We have not found the plans in the Exhibition, but they have been more carefully considered than the one last referred to. The ward towers placed in the four angles of site fall beyond a line drawn from angle to angle of the cross-shaped administrative block, so that the wards are less obstructed as regards light and air than they would have been had they been enclosed as it were or embraced by the arms of the administrative block. In addition it is claimed that only one point in circumference of wall of ward tower is as near the houses on the opposite side of the street as the whole side of an oblong ward would be throughout its entire length. The wards are 60 ft. in diameter, with 188 ft. of wall space, so that each bed has 9 ft. of wall, 3 ft. for the head and 6 ft. for the interval. The area of such a ward would be about 2828 square feet, or a little more than 134 square feet per bed, while the cubic contents of the ward (15 ft. high) would be 42,420 cubic feet, or about 2020 ft. per bed. Mr. Jones claims that a "similar oblong ward would be about 85 ft. by 28 ft., or length of wall 226 ft., floor space per bed 119 ft., and air space per bed 1785 cubic feet, or, in spite of the 38 ft. additional length of wall, 15 ft. 6 in. less floor space per bed, and 232 cubic feet less air space per bed, in the case of the oblong ward." This is true enough, but the value of air space per bed is largely in proportion to the readiness with which the air in that space is renewable, and we think it is tolerably certain that the air would be more easily renewable in a building 28 ft. (or, as we should prefer to say, 25 ft.) in width than in a circle 60 ft. in diameter. There is yet another way of looking at the matter. The cost of a ward is proportionate (other things being equal) to its cubic contents, and we are, we think, safe in saying that the circular wards would be more expensive than the oblong wards. Now, a ward to contain 42,420 cubic feet of the "regulation" pattern—i. e., 12 ft. high and 25 ft. wide, would have to be 141·4 ft. in length, so that (if it were to contain twenty-one beds) there would be on an average about 14 ft. of side wall space for each bed, or an interval of 11 ft. between each bed. Now, we hold that one of the chief things to strive after is to increase the interval between the beds, and we think it is clear that given twenty-one patients they could be housed most economically and most wholesomely in a rectangular ward.

There are many plans exhibited for the construction of hospitals on the pavilion system, or upon a modification of the system. Captain Douglas Galton exhibits the original plans of the Herbert Hospital at Woolwich, plans which have been the parents, so to speak, of many imitations and adaptations.

A large plan is shown by Mr. Lawrence Booth, F.R.I.B.A., of the Salford Pauper Hospital, for 880 beds, and which is to be constructed by contract at a cost of £63 per bed. The hospital occupies a space of 310 yds. by 85 yds., and the average area for each bed is only 80 ft., and in some wards, which only have windows on one side, it seems to us to be even less. We think it would have been well to have spent more money and to have given a greater area per bed. The general arrangement of pavilions (three storeys) and the connecting corridor do not materially differ from that employed in many similar buildings. There are two double pavilions, each floor containing two wards, back to back, with windows only on one side. This, to say the least, is an undesirable arrangement. The drainage appears to have been designed with care; all waste pipes are "cut off," and there is no drain under the building.

Messrs. Ede and Robin show the plan and elevation for the South Devon and East Cornwall Hospital. The pavilion type is here adhered to. The pavilions are two storeys high, excepting the "accident" pavilion, which is only one storey high. The wards have the sanitary offices in turrets, and the ward kitchens and nurses' rooms on either side of the entrance to the ward. The staircases are contained in the pavilions themselves.

The plan for the reconstruction of University College Hospital on its present site by Dr. Poore and Mr. A. Waterhouse, A.R.A., is also on the pavilion type, but shows some important departures from the ordinary mode of construction. The plan is an attempt to provide, on the actual site at present occupied, for the work as at present carried on in every particular. "The main principle of the scheme," says the printed description, "is that each pavilion should be a building complete in itself, and that at all times it should be impossible to pass from one pavilion to another, from one storey to another, or from one ward to another, without going into the open corridor. It might be objected that great inconvenience would be thus caused to those who have to visit the wards, but a doctor visiting the wards of a hospital should regard himself rather as walking from house to house than from room to room, and should be clothed accordingly." The basement storey, which is 16 ft. high, covers the whole of the area, with the exception of a space 36 ft. by 36 ft., to be used as a back yard. Here is found room for a spacious out-patient department and dispensary, having an area of 6400 square feet (more than twice the area of the out-patient department in the present hospital), together with baths, administrative office, and cellarage, having an area even greater than the out-patient department. The ventilation of the out-patient department would be assisted by means of exhaust-flues running to the bath furnace. Above the basement are three four-storeyed pavilions running east and west, united at their west end by a connecting open corridor, and having the sanitary offices and ward kitchens in turrets at the east end. "The W.C.s and sculleries are purposely made as small as possible. If they be *large enough* that is sufficient. Excess of cubic space in these apartments is mere waste, adds greatly to the expense of the building, and tends to encourage untidiness and dirt. A kitchen with a large kitchen range, &c., attached to a ward is quite unnecessary, a few gas-jets sufficient to cook a chop and heat water or liquid food are all that is required." The staircases and lifts are in separate buildings on the eastern side of the connecting open corridor, and thus is prevented the drifting of foul air from one ward to another, or from one storey to another. This is one of the most important features of the plan. The kitchen is placed in the

top storey of the south pavilion. The operating theatres are placed in the top storey of the middle pavilion, while the dead-house, pathological department, and the clinical lecture theatre are placed in the top storey of the north pavilion. These apartments cannot be overlooked in this situation, and they obtain a maximum of light and air, and are less likely to affect other parts of the hospital than if they were placed in any other position. The post-mortem room has a special lift, used for no other purpose, communicating with the back yard, into which the hearses drive for the removal of the dead. On the west side of the connecting open corridor is a building containing private wards and rooms for the residents, and on the top of this building, forming an extra storey, over part of it are the separation wards. "No nurses' rooms have been provided anywhere, because it is believed that when a nurse is *on duty* her proper place is *in the ward*, and that when she is *off duty* she is better out of the hospital altogether. They would live, as at present, in a separate house." The hospital would afford accommodation for 198 beds. The 174 beds in the general wards have an area of 121 6 ft. each, while those in the private wards (twenty-four) have more than double this amount. The estimated cost is £55,000 to £60,000.

We must not omit to mention in this notice the very admirable plans of Hastings and St. Leonards. This is the only watering-place which has done itself full justice in this exhibition. At a glance the intelligent observer can take in the aspect and general appearance of the place with the height above sea-level of different parts of the town, and the amount of shelter from sites, &c. Many important facts are also printed alongside the plans. We hope that other watering-places will not be backward in following this good example.

SANITARY SECTION.

[SECOND NOTICE.]

On examining more minutely the various exhibits it is impossible to avoid being impressed by the unanimity with which certain principles have been accepted. To mention but a few names—Messrs. Banner, Doulton, Buchan, Stiff, Potts, Weaver—all have ventilating intercepter traps which ventilate the sewer and the house. The principle in each is the same. A syphon trap is placed outside the house. Between the water seal and the sewer there is an opening by which the sewer air may be conveyed direct from the sewer to the roof of the house. This, it is needless to say, should not be required, for the public sewer ought to be ventilated by the local authorities, and not by the individual householders. Unfortunately, this is so often either not done or so inefficiently managed, that both patentees and manufacturers have found it necessary to produce contrivances which will enable individuals by their private initiation to supplement and perfect what the public bodies too readily neglect. On the house side of the water seal, and generally immediately above the point where the house drain dips to form the syphon, there is an opening which should be as large as the drain pipe itself. This opening is carried upwards to the ground level, while the drain pipe with which it communicates passes under and through the house to the roof. It is maintained that the fresh air will naturally rush down from the ground to the intercepter, which must be buried some feet below; then, meeting the water seal that separates the house from the sewer, the air current will turn the angle, pass under the house and up behind it, following the course of the drain pipe till it reaches the roof. Probably the difference of temperature within the house causes the inward suction. Dr. C. W. Philpots, acting in his capacity as medical officer of health at Croydon, states that he has frequently examined about a hundred Weaver intercepters, and always found the current of air flowing inwards.

Messrs. Verity Brothers base their system for ventilating house drains on this supposition. They insist that heavy sewer gases will not rise without applying great force to induce a current, and that sewer gas does sometimes come out by the aperture which should only allow the fresh air to go in. This, they urge with some reason, is especially likely to occur when the closets are used, as the fall of the water would determine a downward course of the gas. These are knotty points, difficult to prove one way or the other without repeated and varied experiments. At the same time, there is no doubt that Messrs. Verity Brothers' method of ventilating the house drains offers the greatest security. They place their inlet of air on the roof and the outlet also on the roof; the one, if possible, at the back and the other at the front of the house. Then, so as to be independent of atmospheric changes, they introduce within the drain pipe, and at the base of the house, their patent air propeller, which, being worked by water power, is independent of changes of temperature and propels the gases upwards, whether light or heavy. The principal objection to this system is the extra expense involved. Considering the importance of the object attained, this should not stand in the way; but practically any extra cost is a great bar to the general application of a system, however good in itself.

To return to the various intercepting and ventilating traps. The newest and perhaps the most important one is the "Weatherly" disconnecting and ventilating sewer air trap. This intercepter is manufactured by *Messrs. J. Stiff and Sons*, and has been registered only during the course of the present month of July. It has, therefore, and in any case, the advantage of being a thorough novelty in the market. It is about the same size as the "Weaver" intercepter, and yet it contains a double syphon or two water seals, which are entirely separate. The first bend or syphon is on a higher level; here is the inlet for the house drains, and above it an inlet for the fresh air, which is perhaps somewhat small. A division or water seal guards the house drain. On the other side of this division there is a large chamber, in the centre of which the first syphon ends; the water falls over to the lower curve of the second syphon, the seal being formed by the outer wall of the apparatus, the syphon terminating in the commencement of the exit or drain pipe. Two openings have been made above this large chamber, the one with a tight removable cover for inspection, the other communicating with a ventilator, which can be carried above the roof and would relieve the first seal from all pressure. This trap does not therefore provide for the direct ventilation of the public sewer, but ventilates the space between the first and the second water seal, so that any sewer gas which may have forced the first trap would be carried away before it could attack the second trap. Apart from the security thus offered, the great advantage of this trap is the fact that it is made in a single piece; there are no diaphragms to intercept the passage of the soil, the curves being carefully rounded off and the water channel being everywhere of equal width and depth. Further, the trap has a solid foothold, so that it cannot get out of position when once it is set on a proper ground. The "Weaver" trap retains, however, one special advantage over this newer rival. The bend that forms the syphon is more gradual, the sweep greater, so that where the water-supply is insufficient or the fall of the drain very slight, the trap would be more easily cleared and flushed than most of the other and similar contrivances. While mentioning the "Weatherly" sewer air trap we should not omit to mention the "Weatherly" disconnector waste-water trap, which, though not so recent an invention, may still claim to be a novelty. It is, in shape, a deep square stoneware box covered with a grating. A twisted pipe forms a syphon which opens into the trap nearly on a level with the grating, and the outlet is larger than the inlet, so as to minimise the danger of stoppages. The outlet pipe on the opposite side commences very near the bottom of the box or receptacle, and does not find its way through the side till it is more than half way to the top; so that the receptacle itself forms a deep and large water seal.

Messrs. Thomas Smith and Co. have some very good improved street gullies that would also serve for waste water. One model has a very small exit, and beyond it an iron flap to prevent a back current, and an inspection aperture above. This firm has also introduced perforated discs between its gullies and the pipe leading to the sewer, so that the gully also acts as a sieve to stop all solid matter.

The Patent Edinburgh Air-Chambered Sewer Trap is an intercepter, by which *Messrs. J. Cliff and Sons* seek to carry out the principle of drain ventilation to which we have alluded. In this case there is but one water seal, with an opening beyond it to ventilate the public sewer. A large piece of pottery is placed between the syphon trap and the house. The bottom resembles a drain pipe, the upper portion is like a box. The box is divided in two, and covered by a grating. The half nearest to the syphon is supposed to admit the escape of any sewer air that may have passed the trap; but there is nothing to prevent this same sewer air entering the second chamber, where the fresh air is supposed to rush

in and ventilate the house drains. This trap is composed of three separate pieces of stoneware; it is very long, and could not be placed before a house which had not a large garden space in front; and, finally, the soil passes under an open grating only a few inches below the earth level, and almost in sight of passers-by.

Mr. Banner in his inlet-outlet traps, capped with his revolving exhaust cowl, has done much to familiarise the public with the principles which so many manufacturers are now trying to carry out. So confident is Mr. Banner of success, that he even refuses to place traps under the closet seats, the intercepter outside and the perfect ventilation of the drain pipes being in his opinion sufficient.

Mr. W. P. Buchan's intercepter is simply a syphon with an inlet before and behind the water seal, which may be used for the creation of through currents; if effective, it in any case offers no novel feature or extra guarantee.

Another point on which great unanimity of opinion is manifest relates to the abolition of what is technically known as the "container." This is nearly as universally discarded as the time-honoured D-trap; though one exhibitor boldly steps forward to proclaim that, after all, the D-trap is the best of all traps. At the same time, and while totally disputing the advantages of the D-trap, we willingly acknowledge that the cast-lead D-traps manufactured by *Messrs. J. Pullen and Son* are very neatly turned out, and, being devoid of soldering, offer the best guarantee against corrosion. The "container" is a cup-shaped valve, which, by reason of its depth, retains a certain amount of water in the pan of the old-fashioned closets. Experience has proved that this container soon becomes fouled, that there is no ready means of getting at it to clean it, and that a large receptacle must be provided under the pan for it to swing backwards and forwards, which, by reason of its size, is exposed to the dirt, is impossible to flush satisfactorily, and accumulates sewer gas. The "container" thus condemned, the expedient of a side issue from the pan or basin, has been popularised, more especially by Messrs. Jennings; but considerable rivalry exists as to how this side issue is to be managed.

Messrs. Doulton, in their Lambeth ["trapless" closet, have a valve which opens upwards and backwards, so that the soil passes under it and cannot get behind it. This they consider a great improvement on the plunger which is lifted up to let the water pass in the ordinary closet of this description.

Messrs. Clapper, Son, and Co., in manufacturing Pearson's patent trapless "twin basin," allow their plunger to go right down to the bottom of the water and close the opening to the drain pipe, so that the soil must actually accumulate on the top of the plunger, and trust that it will be shaken off when the plunger is drawn out of the water. This, from the conical shape of the plunger, is likely to happen, and, in any case, all the exposed parts are thoroughly covered with water when the closet is reclosed.

The fear of fouling the valve or plunger is so great that several manufacturers have produced what is generally known as the wash-out closet. In these the basin is on a somewhat lower level than the side opening, so that a little water can accumulate in it though there is no valve or plunger to close the exit. For washing out the soil we are forced, therefore, to rely exclusively on a powerful flush of water, which shall carry everything up and over the ledge in front of the opening. The most notable example of this sort of closet is *Messrs. Beard, Dent, and Hellyer's* "Vortex," which is so contrived as to form a good water seal. Buchan's patent Carmichael closet is very similar in shape to the above, but as the lower part of the basin is made of a separate piece, the basin and trap may be turned in any direction. The Lambeth "Flush-out" closet does not form a water seal, which has to be provided by a syphon underneath the pan; but it is very cheap.

Apart from the side exit, the other method of avoiding the obnoxious "container" is to construct a flat valve which shall fit so perfectly and press so tightly against the opening made in this case at the bottom of the pan as to keep the pan water-tight. This end is attained by a counterbalancing weight that presses the valve against the basin when closed; and by placing india-rubber round the valve or round the opening of the basin. The objection to the system is that ultimately the india-rubber, or whatever other similar material is employed, wears out. If the valve is closed with violence it is apt to cut the india-rubber, and in the long run the basin leaks. On the other hand, this system has the great advantage that, if the water-supply fails, it is possible to empty the basin more or less well without flushing. With basins having a side exit this would be totally impossible. There must be water, and the water must come with considerable violence. Pearson's "twin basin" is the only closet we have seen with a side exit where, the exit being at the lowest level, the basin could be cleared without water.

It is, however, satisfactory to note that broadly speaking, nearly all the exhibitors are agreed as to the principle which should govern the working of intercepters placed between each house and the public sewers, that there is a large choice of methods by which the Local Government Board by-laws can be carried out in this respect, and, finally, that if division of opinion exists as to the best form of substitute, the old "container" is now fully condemned and abandoned.

MEDICAL TRIALS.

FULLER *v.* PALMER.

CHARGES FOR MEDICAL ATTENDANCE BY A SURGEON AND APOTHECARY.

Before Mr. Justice GROVE *and* Mr. Justice LINDLEY, *at Westminster, Monday, July 25th, 1881.*

THIS case came before the Court on motion of appeal by the defendant against an order of Mr. Justice Mathews, at Chambers, giving the plaintiff leave to sign judgment on the ground that there was no real defence to the action. Mr. Turner appeared for the appellant, and Mr. Ross for the respondent. It was stated that the plaintiff was a Fellow of the Royal College of Surgeons in England, and a Licentiate of the Society of Apothecaries, and that these qualifications had been duly registered by him under the Medical Act of 1858. The action was for the recovery of the plaintiff's charges for medical attendance and medicines supplied, and in the particulars of claim were such items as "To consultation and prescription." The plaintiff described himself as a "Consulting Surgeon."

Mr. Turner, for the defendant, now contended that as the plaintiff was not a physician, he could not recover for attendances except in surgical cases, and it was not shown on the writ, or in the affidavit, upon which the learned judge made his order, that the case, in respect of which the charges were made, was a surgical case.

Mr. Ross said that his learned friend had omitted to notice that the plaintiff was a qualified apothecary, and as such was entitled to charge for attendances and medicines supplied. He quoted the case of Allen *v.* Fletcher as bearing upon the subject.

Mr. Justice Grove thought that the attendances referred to in that decision were other than medical attendances, such as, for instance, on being called upon to supply medicines in a certain case, going, as a conscientious man, to see whether the case was one in which he would be justified in supplying medicines.

Mr. Turner referred to the case of Allison *v.* Haydon (4 Bingham's Reports, p. 619), in which it was held that a surgeon could not recover for attendance in a case of typhus fever.

Mr. Ross pointed out that the plaintiff in that case was only a surgeon, and referred to the case of Handey *v.* Henson (4 Carrington and Payne's Reports), where the plaintiff, being a surgeon and apothecary, recovered for attendance and medicine supplied.

Mr. Turner relied upon the Medical Act, by which he submitted the plaintiff, being a surgeon, could only recover for attendance and medicine in a surgical case; and he was bound to show that the case in respect of which he claimed was a surgical case. The defendant also objected to the plaintiff's charges as excessive.

Their Lordships' decision was, that the defendant should have leave to defend upon paying the amount of the plaintiff's claim into Court. Costs of the appeal to be costs in the action.

DRS. WATERS AND JOHN ROBERTS have been nominated by the Lord Chancellor as Justices of the Peace for the City of Chester.

THE LANCET.

LONDON: SATURDAY, JULY 30, 1881.

THE largest gathering of members of the Medical Profession that has ever been held will assemble in our metropolis within a few days. We shall soon be welcoming visitors from every great continental country and America by their hundreds, and from more distant lands by their tens, and at the opening general meeting almost every phase of medical practice and training will be represented. We naturally ask, How comes it that the invitation sent out by a few Englishmen has been so widely accepted? why this rush to our capital? In part, no doubt, it is to be explained by the greatness of the city, which, without boasting, is regarded as the metropolis of the world, its comparative ease of access from every quarter of the globe, and its familiarity to all who travel; in part to the good organisation of this meeting, to the deliberate attempt to win members of the Congress from every land in which scientific medicine is practised; but probably we may fairly say that no small portion of the success of the Congress depends upon the high place that English medicine and surgery have long taken and continue still to take. Our scientific history does not date far back; we have no names of men great in the old world, few even who illumined the Middle Ages. But since science began to take root in this country it has steadily and continuously advanced; each century, almost each generation, has been marked by the presence of a man of commanding genius enlarging its domain by gigantic conquests, while the great army of combatants has fast grown in numbers, intelligence, and zeal. And notwithstanding the great unity of science, British medical science has always been characterised by one great feature—its practicality; our greatest men have been practitioners of their art, not theorists or visionary writers; and the distinctive peculiarity of British medicine and surgery has been this, that improved treatment has always been the attendant upon new discoveries—nay, has been the mainspring of the endeavours which have proved successful. To mention only four names of those inscribed on a roll for ever illustrious—HARVEY, HUNTER, JENNER, SIMPSON—is to recall the memory of discoveries whose results are experienced in every home in the civilised world. It is this happy association of practical good with science that has specially characterised, and, we hope, always will characterise, British medicine, so far as it differs from the science of other countries; and we believe that to this is due no small share in the readiness with which our invitations have been responded to. But the distinctions between the practice of different countries are rapidly becoming less, and with improved means of travelling, rapid communication, and a widely circulating press, it has come about that among those who will visit London for the first time next week there will be very few strangers. The names of the leading workers on the Continent and America are, in certain cases, even more familiar to us than are some of those of our own land, and a fear has even been expressed that we may be losing somewhat by being so cosmopolitan. This is not the time, however, for considering that question. We are now welcoming among us many hundreds of our fellow labourers from other lands working under different conditions, and yet all in one great cause, and we bid them a hearty welcome as friends and comrades, not as strangers. Of the individual hospitality that will be shown we have no misgiving, and we feel assured that our visitors will receive every consideration that courteous hospitality can suggest. We are anxious, however, and far more, that they should carry back a high appreciation of the real character of British medicine and surgery, its truthfulness, transparency of purpose, its intense concern for the good not only of mankind in general, but of each individual sufferer, its scrupulous regard for human life, its high sense of responsibility. We may not be able to show the finest laboratories or largest hospitals, but we can show schools whose pupils become sound practitioners, and hospitals in which everything centres in the cure of the sick.

We have spoken above of the success of the Congress, it is premature, perhaps, to use such a term, but the large number of members already announced—nearly 3000—is a guarantee that it will not fail in magnitude, while all that a lavish expenditure of money can secure will be enjoyed. There are, doubtless, spots on the sun, and he need not be a captious critic who would readily point out errors of omission and commission on the part of the leaders of the Congress. Such were, perhaps, inevitable; but we claim no favour in asking the profession to give it their hearty support, and help to minimise the results of any possible errors by the energy, good feeling, and discretion of the general body of its members. We confess to a feeling of satisfaction at the announcement of the prominent part H.R.H. the Prince of WALES is to take in the opening general meeting, for we believe it to express the sympathy felt by Royalty with the profession. Sir WILLIAM JENNER, our honoured head, occupies his proper place in being the first to address the Congress; he it is to whom our visitors will be first introduced, and we care not to look for a better representative of all that is good in British medicine. The more arduous labours will devolve upon others; Sir WILLIAM enjoys the rare privilege of being able to honour the Congress by his mere presence. In Sir JAMES PAGET, the President-elect, will be found a surgeon whose name is worthy of standing alongside of any of his predecessors in his art, and whose clearness of thought and almost unequalled grace of diction render him in no mean degree fitted for the honourable task allotted to him of delivering the inaugural address. We cannot now canvas the further programme of the Congress. There is every promise that the meeting will be long remembered as a pleasant reunion, that it will unite in mutual friendship many known to each other now only by name, and will leave behind a solid harvest of scientific work.

EVIDENCE of considerable weight has been lately brought forward to show that leprosy must be included among the diseases which are due to parasitic organisms. The successful cultivation of bacteria from a case of this disease, by a French physician, was lately noted by our Paris correspondent, and the results of a very important investigation into the same subject by ALBERT NEISSER have been published in VIRCHOW'S *Archiv*. The idea is not altogether

new. VANDYKE CARTER was the first to call attention to the presence of organisms in the disease, and subsequently KLEBS stated that groups of bacteria can readily be found in an extirpated tubercle, and that their form and arrangement are totally different from that of the organisms met with in other diseases. HANSEN also, in some very careful and exact observations made as long ago as 1873, found in fresh tubercles an abundance of mobile rod-shaped corpuscles, and had previously noted in old tubercles, in the testicle, and in the retina, yellow, flaky masses, which were possibly aggregations of zooglœa. He succeeded in cultivating the organisms, and suspected that they constituted the specific virus of the disease. An attempt, by inoculating them, to communicate the disease to animals, failed.

The material on which NEISSER has worked was derived from twenty-one cases, and in every case, in all the pathological products, he found the specific form of bacillus. It was present in the new formations in the skin, and in the mucous membrane, palate, and larynx; in the interstitial morbid tissue of the peripheral nerves, the cornea, cartilage, and testicle; and, further, in the lymphatic glands, the spleen, and the liver. The organisms were absent in the muscles and in the spinal cord, and also in the bullous skin diseases and the affections of the joints and bones—changes which are not primary, but are rather to be regarded as secondary to the nerve lesions. In the skin, the bacilli were found not only in the circumscribed tubercles, but also in the diffuse infiltration, and they occupied the interior of the large round "lepra-cells" described by VIRCHOW, either diffused through the protoplasm or aggregated into groups. Their presence alters the size and form of the cells, which degenerate into globular masses, the nature of which was at first mysterious. In the blood-vessels the presence of bacilli could never be demonstrated. Nevertheless, their distribution corresponded to the arrangement of the smaller blood- and lymph-vessels, which were surrounded by cylindrical collections of the infiltrated cells. The glands of the skin do not appear to be primarily diseased. The mode of affection of the mucous membranes is almost the same as that of the skin. Examination of the larynx showed that both the cartilage of the epiglottis and the thyroid cartilage are invaded by the bacilli. Chains of infiltrated round cells could be traced between the cartilage cells from the perichondral connective tissue, the fusiform cells of which were filled with bacilli, and free rods were also seen in the tissue of the cartilage. Again, the organisms were found in the substance of the cornea, and their number rendered the cornea cloudy from the circumference to the centre. Bacilli were also found in the testicle, epididymis, in the interacinous tissue of the liver, and in the spleen. The lymphatic glands were densely infiltrated in the peripheral zone and in the interfollicular spaces.

The presence of bacilli in the peripheral nerves is of special importance, since it brings together, as due to one pathological process, the tubercles and the anæsthetic symptoms which have clinically been so widely separated. In old-standing cases the nature of the affection of the nerves cannot well be made out; the bacilli ultimately perish, and only the increase of the interstitial fibrous tissue and atrophy of the nerve fibres can be discerned. But the death of a leprous patient from an intercurrent malady afforded the opportunity of examining recently affected nerves. The interstitial process in the nerves was found to be identical with that in the skin, and similar large infiltrated cells were found in the interstitial tissue. Although focal changes were found in the spinal cord, with destruction of the nerve-elements, their exact nature could not be determined. NEISSER regards it as probable that all the anomalous symptoms which are manifested in anæsthetic leprosy—the disturbance of sensibility, muscular atrophy, pemphigus bullæ, and multiple affections of bones and joints—are due to the infiltration of the nerves.

The lepra bacilli are best rendered visible by staining with fuchsin, but the colour they assume is much less intense than that of micrococci. They are very slender rods, their length being half or three-quarters the diameter of a red blood-corpuscle. They are straight or slightly curved, and resemble most nearly the bacilli found by KOCH in the septicæmia of the mouse, but are rather less delicate. Sometimes small granules are found instead of the bacilli. These are either the products of decomposition, or they are indications of reproduction. The presence of a mucoid substance around the rod can be observed. In the juice of the tubercle, and in the pus from the resulting ulcers, in which the organisms are abundant, active movements may be observed.

The minute size of the bacilli renders the study of their growth under artificial cultivation a matter of considerable difficulty. The products have to be dried and tinted before the results can be ascertained, and the fact that animals resist inoculation renders the identification of the cultivated bacteria a matter of some uncertainty. But considerable importance attaches to the organisms obtained by culture from the fact that the resulting forms can also be detected in the leprous tubercles. Besides the smooth bacilli, two other forms are met with. First, rods with a globular enlargement at one or both ends, or in the middle, and their size is proportioned to the number of enlargements. They are usually bent at an obtuse angle at the position of the enlargement. Some were also seen with a terminal lance-shaped enlargement. All these forms are mobile. A second variety presents one, two, or three clear spaces, which do not tint, occupying the entire width of the rod, but with distinct walls. Opposite each a process or even a minute bacillus could frequently be traced, apparently in development by budding. The appearance presented by these two forms in sections of hardened organs is extremely misleading. Another mode of growth occasionally seen was by the formation of fine fibres, three or four times as long as the original rod, arranged like the bacilli, in aggregations, but nowhere presenting a formation of spores. Nevertheless, it is highly probable, from analogical conditions in other bacteria, that the clear spaces above described are the seats of spore production. The organism to which this bacillus bears the closest resemblance appears to be that which is believed to be connected with ordinary malaria.

That these bacilli and spores are the cause of the pathological new formations in leprosy cannot be demonstrated in the same manner as is the dependence of the pathological processes of anthrax upon its bacillus. Nevertheless, the causal relationship is extremely probable from the following

facts. First, the absolute constancy of the bacillus, not merely in all the new formations in a given case, but also in the material from cases widely different in source. The bacillus was not only found, but presented identical characters, in cases from Norway, Spain, Guiana, the East Indies, Roumania, Brazil, and Palestine. Secondly, the minute characters of the histological process in the tissues support the hypothesis of its dependence on bacilli, since their appearance in the lepra cells of VIRCHOW invariably coincides with the development of these from wandering cells into connective-tissue elements. This fact seems to indicate that the specific form of the lepra cell depends on the influence of the specific bacillus. Thirdly, the results of inoculation experiments have not been altogether negative. Although the large bacillus-holding cells quickly perish if introduced into the system of a rabbit, they may, in dogs, lead to veritable leprous new formations. A piece of a freshly-extirpated tubercle was placed beneath the skin of a dog without effect; but in the case of another dog, which died a month after the inoculation, there was found beneath the scar minute, delicate, new growths crammed with these bacilli. A similar result was obtained in the case of another dog. The new formations contained no trace of the old histological elements, which were apparently absorbed and replaced by new elements. The migratory cells, due to the inflammation, had taken on a new process of growth under the influence of the specific agents, the bacilli. The resulting disease must be regarded as a local leprosy produced by inoculation.

The evidence being thus strong that the bacilli are the specific agents of leprosy, the question presents itself, By what path are they disseminated in the system? No bacilli or spores have yet been discovered in the blood, nor in the bloodvessels in diseased parts. Culture of the blood taken from a healthy part of the skin was without result (a different result from that obtained by the French observers). Bacilli always multiplied in the blood when this was drawn from a leprous new formation. It then presented an increase of the white corpuscles, which were of two characters: first, larger cells with multiple nuclei like pus-corpuscles; and, secondly, smaller round cells, with a large oval nucleus, and in the nucleus fine distinct granules, tinting readily, and apparently spores. Cultivation of this blood yielded bacilli developing from small lance-shaped bodies. Nothing of the kind could be obtained in some control experiments on the blood of healthy individuals. Hence it was suspected that the spores got into the blood by the perivascular lymph-spaces, where, as already stated, cells holding bacilli are aggregated, and the phenomenon of the spread of the eruption in the skin is often such as to suggest an affection of the lymphatics, and so also does the special involvement of the lymphatic glands.

It is evident that these conclusions are in perfect accord with the view, accepted by some and rejected by others, which regards leprosy as an infectious disease. The facts suggest that it is essentially contagious by means of its specific products, tubercle cells, tissue juice, and pus. At the same time, all the liquids, and even all the pathological secretions, of a leprous patient are not specifically infectious—as, for instance, that from the skin eruptions, which are secondary to the nerve lesions. NEISSER inclines to the opinion that leprosy is not hereditary, but it is possible that the facts he has ascertained are not entirely incompatible with that view.

The great importance of the subject of the nature and mode of extension of leprosy is evident from its steady increase in certain countries into which it has been introduced. In the Sandwich Islands, for instance, the disease was unknown forty years ago, and now a tenth part of the inhabitants are lepers. In Honolulu, at one time quite free, there are now not less than two hundred and fifty cases, and in the United States the number is steadily increasing. The disease is occasionally imported into San Francisco by the Chinese, to whom is also due its introduction into the Sandwich Islands.

"DO we live longer, or are we only slower in dying?" The *Spectator* suggests this pertinent question as one to which the Medical Congress might help to find an answer. While recognising with becoming thankfulness that "the expectancy of life has," so far as the population of London is concerned, "risen a whole year within the last decade," our contemporary observes, "But we want to know accurately a little more, and what is the kind of life which is increasing—whether it is young life, or mature life, or aged life which is being enlarged? Are we young longer," he asks, "or mature longer, or old longer?..... Do we live longer, in fact, or are we only a little slower in dying?" The view to which the *Spectator* inclines is thus stated: "We should ourselves say, with a very strong conviction, that in England nearly the whole gain had been made between sixty and seventy; that the number of men who 'failed' between sixty and seventy—that is, who became old, lost their eyesight, or were otherwise impaired—was decidedly less; that a man of sixty-five was visibly younger than he would have been at the same age forty years ago." If this conclusion be just, there is unquestionably ground for congratulation. We will not, at this moment, anticipate the light which the statistics of "age at death" would tend to throw on the hypothesis of special longevity after sixty; the general proposition affords ample scope for remark. Obviously, although diseases affecting the nervous system are alleged to be on the increase, we do not see nearly as many cases of what used to be called "shaking-palsy" as were presented to notice in the streets some thirty or forty years ago. The change accomplished has been gradual, and may not have attracted much notice; but if any middle-aged observer will call to mind the sights he encountered in his youth and those which now meet his eye, he can scarcely fail to appreciate an improvement in the respect to which we have alluded. Again, the men over sixty of to-day are certainly more robust than those we knew in boyhood. They walk more erect and with a firmer tread, and in the intellectual spheres it is certain they are more energetic. We are not speaking of the specially trained classes represented in the Legislature or occupying the front rank in the learned professions. In the province of mental industry, as a whole, men of ripe years are comparatively more numerous, and they hold their own better in the presence of their juniors. These are cheery facts so far as the old are concerned; but, as our contemporary suggests, how do they affect the position and prospects of the young? It may well be that those who

survive the ordeal of an increasingly arduous existence are the more robust and live the longer for the training they have undergone, and so the population may consist in advancing proportions of men who may be described as mental and physical veterans. An increasingly severe discipline has generally the effect of killing off the weak and strengthening the strong, so that at any one period the average of members of the corps will be more robust and long-lived than under a system which allows the young to live, but does not impart the full vigour of life to the mature. The numbers of persons living at the several ages in two census years should show what our mode of life does for the community in regard to this point. Meanwhile, we incline to the belief that the *Spectator* is right, and that the gain of which we have as yet to boast is principally, if not exclusively, in connexion with the longevity of the middle-aged or old. Perhaps there is something of the selfishness of age in the reflection that, "If science could but make seventy instead of sixty the end of the energetic period, it would accomplish far more for mankind than it ever will by doubling this number, or increasing the rate of youth, as it would be increased, for example, if the mortality among children under five could be reduced one-half." And certainly there is something of cynicism in the sentence with which our contemporary concludes his lucubrations—namely, "The doctors will secure that last result [that is, the reduction of infant mortality] one day, but the only result will be that there will be more human force in the world with which to make mistakes." An augmentation of human force does not necessarily imply a proportional addition to the sum of human error. It *may* happen that with a larger amount of force at its disposal humanity will achieve greater and better results in the work of its own improvement. It must be conceded that the world does not promise to become a happier place, or state, as it becomes more crowded, but a patient philosophic spirit would lead us rather to hope than to fear the issue. If to the prolongation of lives which have been trained in the school of experience can be added a diminution of casualties among those who are entering life or passing through its most critical stages, the ultimate result may be an army of more trustworthy veterans and more vigorous recruits, together forming a community such as the world has not hitherto witnessed. Let the *Spectator* wait until the issue of such detailed computation and inference as may be expected from the General Registrar's Office before it again utters a Cassandra-like cry.

It is one thing to live long, another to die slowly. If it could be shown that men were not so well able to fight the battle of life at a mature age as they used to be, there would be room to question the value of such an improvement of human health as has been effected. Confessedly the community could not be held to be advantaged by the prolongation of useless or powerless lives. To drag out a joyless and purposeless existence would be a curse rather than a blessing; but, so far as the facts are set out in the remarkable article on which we are commenting, there is nothing to show that human health has not been substantially improved, while death has been deferred. It may be conceded that the mortality of a population does not necessarily supply a complete indication of its healthiness. It is conceivable that the average life of a people might be lengthened while its grade of life was lowered. There is, however, nothing in the article before us to suggest that even the *Spectator* is prepared to contend that this *fiasco* has been accomplished. On the contrary, it is conceded that "though science has accomplished little either for the deaf or the blear-eyed, it has done much for the rheumatic, much for feeble digestion, and much, very much, for that tendency to the kind of ague which half a century ago was nearly a universal misfortune among the old." It is scarcely conceivable that results as excellent as these can have been gained without an "improvement of human health," which amounts to something more than simply not dying. Tithonus can hardly be the archetype of our modern improvement if the ameliorations of health which the *Spectator* recognises have been achieved for the aged. Meanwhile, by all means let the Public Health section of the Congress deal with the question raised in so far as it may be held to express an honest doubt of the value of those benefits which science has conferred on humanity. Nothing but good can issue from such a deliberation as our contemporary suggests.

AT last, after months of inexplicable delay, the Government, as represented by the Local Government Board, has made a beginning of its long-promised establishment for the cultivation and use of animal vaccine lymph. Failing any statement made by Mr. DODSON in the House of Commons, or any instructional memorandum issued by the Local Government Board, it would be premature to adventure any speculations upon the particular objects which the establishment in its initial stage will effect; but of the fact that a beginning has been made there would appear to be no doubt, and that this beginning is accompanied by certain mysteries of which we see little hope of elucidation until the subject become a matter of question in Parliament. And, first, few people will be prepared to learn that the area covered by London is so small that it has been found impracticable by the Government to find a place in it which would give proper accommodation for the cultivation of vaccine lymph among calves, and for the practice of animal vaccination in the human kind. But such, in all seriousness, we understand is the fact; and the Local Government Board have had to become indebted to the guardians of Kensington for the use of the stone-yard attached to the Notting-hill Workhouse for redeeming their promise to the public after a fashion. Here, it would seem, operations have actually begun for the cultivation of vaccine lymph on calves; but for the cultivation only, for the premises neither give accommodation nor can be made to give it for the practice of animal vaccination, either among children or adults. Thus the establishment is tarred from the beginning with the Poor-law brush, and the avowed policy of the Local Government Board in respect to public vaccination in its relation to the Poor-law is set aside, under circumstances where such inconsistency is least to be excused. What is to be done with the vaccine lymph manufactured at the Notting-hill Workhouse we shall no doubt learn officially in due time; but as material for the creation of new stocks, as was explained in the House of Commons by Mr. DODSON, when he last spoke there on the subject, it may be surmised

that it will have a place among the supplies issued by the National Vaccine Establishment.

The difficulty in procuring a locality in which to found its animal vaccine establishment seems to have been peculiar to the Government and its departments. For no such difficulty has been experienced by private individuals in forming such an establishment, and in obtaining a supply of calves necessary for the perpetuation of the lymph. Whether the difficulty exists with an indisposition to move in the matter in the Government departments we do not venture to say, but at least it is noteworthy that a partial success is only achieved when the immediate necessity for the supply, in public opinion, happily comes to an end with the decided amelioration of the small-pox epidemic. It is rumoured that the responsibilities of a Government department in the matter cannot be undertaken as light-heartedly as a private adventure, and that Government (in this case the Local Government Board) has had to give serious and prolonged consideration to many points before it could undertake the responsibility of the new establishment. Among other questions it is stated that the subject of feeding the calves to be operated upon has given rise to much discussion and delay, and that Mr. DODSON'S soul has been grievously exercised with the question of dry-nursing them. This matter could not fail to enlist warmly the attention of the House of Commons, not only from the interest attaching to the subject itself, but as affording some insight into the strange delay in starting the new establishment.

Annotations.

"Ne quid nimis."

PASS AND PLUCK.

SOME useful lessons may be learnt from a consideration of the figures contained in the statistical tables published in another column, of the results of the primary and pass examinations for the diploma of Member of the Royal College of Surgeons of England, during the collegiate year 1880-81. The percentage of rejections is discreditably high at several of the largest metropolitan and provincial schools, both for the primary and for the pass examination. It is, however, not a little remarkable that, while the average percentage of rejections is nearly the same for the two examinations, being 37·57 and 37·44 respectively, there is, in many instances, a great difference in the results of the two examinations as regards particular schools. Of the metropolitan schools, the accompanying table shows that, speaking generally, where the percentage of rejections at the primary examination is higher, it is lower at the pass, and *vice versâ*, a low rate of rejections at the primary being usually associated with a high rate at the pass. Of the first three provincial schools given below, the percentage is extremely high for both examinations, and, with the exception of the Manchester school, higher for the pass than for the primary. The Liverpool school and the Edinburgh school have a smaller percentage of rejections at the pass than at the primary, but in all the other provincial schools there appear decidedly more rejections for the pass than for the primary. These facts seem to indicate some essential difference or dissimilarity in the mode of teaching students and preparing them for the two examinations; and appear to lend some support to the opinion that teachers are at least as responsible as their pupils for the average results of the primary and pass examinations.

PERCENTAGE OF REJECTIONS.

	Primary.	Pass.
St. Mary's	53·64	29·09
University College	48·34	28·92
St. Bartholomew's	40·37	28·54
King's College	36·02	55·0
St. George's	33·3	36·14
Guy's	30·92	44·11
London	19·56	49·49
Manchester	52·77	45·36
Leeds	51·29	60·0
Newcastle	51·16	51·8
Liverpool	26·6	19·06
Birmingham	25·0	42·105
Cambridge	23·21	27·27
Bristol	17·64	36·36
Glasgow	60·86	69·76
Edinburgh	34·07	26·47

PRESIDENT GARFIELD.

THE improvement we noted last week in President Garfield's condition has unfortunately not been maintained, and a so-called relapse of grave import has been noted. On Saturday two rigors occurred, and the discharge of pus from the wound materially diminished. It was found that the cause lay in pus pent up in the deeper parts of the wound, and the cavity was laid freely open by a counter-opening, and a drainage-tube passed through; the discharge of pus has since continued free, some fragments of the broken rib have escaped, and the fever has again abated; so far matters are encouraging. But this incident shows the special danger of the case. The bullet is still at the bottom of the wound, and a bone has been splintered; it may be also that portions of the dress have been carried in. Each and all of these conditions may light up and perpetuate suppuration, while the sinuous character of the wound hinders a free discharge of the inflammatory exudation. And each abscess that forms is not only a direct source of danger in itself, from the pain, the fever, and the danger of spreading deeply, but with each there is a fresh liability to the occurrence of blood-poisoning. We doubt not that every precaution will be taken to keep a free passage for discharge along those parts of the wound which can be influenced from without, and the patient appears able to take nourishment, and so sustain his strength for the struggle. It is quite impossible to feel any certainty that we may not hear of another abscess—another relapse—and it is of great importance that the constitutional vigour should be maintained at as high a pitch as possible in view of future troubles. We can only repeat our former assertion, that only when the patient is well will he be out of danger; the absence of fever and severe exhaustion removes any cause for immediate alarm, but until the wound is quite healed, and the bullet either removed or safely encysted, there will be liability to recurring abscesses, each attended with a certain risk of blood-poisoning.

CHARITY VOTING REFORM."

THE Bishop of Manchester, speaking at the annual meeting of the "Charity Voting Reform Association," paid a high tribute to the plan pursued by the Medical Benevolent College, which appoints a committee to investigate the claims of applicants for its aid, and encloses a report with each voting paper sent to its subscribers. This mode of procedure affords great facilities for the due and worthy administration of charity; and does much to obviate the evils of the ordinary system. At the same time, we should like to see the reform carried further. Subscribers must, probably, retain a direct and personal interest in the distribution of charity, or they

will cease to subscribe. Those who give money in aid of distress naturally like to *know* that it is used according to their own notions of expediency, whether these be right or wrong. Nor can it be denied that there are perils attending the surrender of all control over the administration of a charity to a small body of governors. On the whole, we think it must be conceded that there is sound sense in the claim made by subscribers to select the objects of their benevolence. There is, however, no reason why a subscriber should not be required to place himself in direct communication with a committee of investigation, and to supply full details of any case which he recommends, at the same time pledging himself not to seek to influence the votes of other subscribers; every communication passing through the committee. Canvassing on the part of candidates or their friends should be held to disqualify, and we thoroughly agree with the proposal to abolish "polling days." It would even be well to let the time of an election and the number of vacancies be kept a profound secret. There is, in fact, no reason why elections should take place at special periods. Vacancies could be filled up as occasion offered from a list in the hands of the committee, voting papers being sent out to subscribers, returnable at once, when a selection must be made. By a few reforms of no great magnitude in themselves, the system of voting might be wholly changed, and placed on a new and satisfactory footing. The Medical Benevolent College deserves high credit for the excellence of its management and the fairness with which its elections are generally carried out.

EARL GRANVILLE ON THE GOUT.

EARL GRANVILLE, who, we are glad to hear, is recovering satisfactorily, though slowly, from a severe attack of gout, recently—at the opening of the International Medical and Sanitary Exhibition—gave a humorous account of his experiences as the recipient of all sorts of contradictory advice as to the treatment and regimen suitable for that most dolorous and distressing malady. The noble lord being reported—erroneously, as it seems—to be labouring under an attack last Easter, was daily and hourly favoured with communications conveying prescriptions and advice. He was told to drink whisky, to drink claret, to adopt the most rigid teetotalism, to live generously, to almost starve himself, and, as an anti-climax, to provide himself with a complete set of artificial back-teeth. We can readily understand that these, and divers remedies and methods of precaution against "the gout," were honestly recommended by persons taking a sincere interest in Lord Granville's health, and feeling genuine confidence in the "treatment" they prescribed. The truth is that "gout" is one of those constitutional affections which may be, apparently, benefited by almost any mode of "doctoring" or "self-cure" which involves a change of habit; while as to a "cure" by any system or specific, the thing is impossible. Sufferers from gout generally err by regarding their enemy as a disease instead of a habit. When they "live by rule," they sometimes escape an attack for months, or it may be years, in succession; but there comes a paroxysm which seems to take its revenge in pain and subsequent weakness for the persistency with which it has been kept at bay. Probably Lord Granville, and other martyrs to this affection, would fare better if they could adopt the sensible line of conduct in which Sir Thomas Watson long ago set an excellent example. We remember once hearing Lord Granville say, in the presence of Sir Thomas, that he would give a great deal to be able to imitate and emulate that veteran physician's method of health preservation. The secret of this method has, we believe, lain in the fact that Sir Thomas Watson, in the zenith of his career, declined to work after dinner or go out at night. It is a familiar saying in political circles that "the Lords must dine"; but Lord Granville has always been remarkable for his energy, and is not likely, late in life, to benefit by recourse to rest as a remedy. Gouty subjects cannot find relief in inaction. It is generally when they begin to take life more easily the malady obtains the upper hand. If Lord Granville had adopted a policy of repose early in life he might now have been less oppressed by the gouty diathesis. As it is, he, in common with men of his type and rank, must elect to suffer or to work—with even more continuity and with relatively increasing energy of mind and body than have already distinguished his lordship's active and useful career.

MEDICAL REGISTRARS OF BIRTHS AND DEATHS.

THE Norwich Board of Guardians had at a recent meeting to elect a registrar of births and deaths, to fill a vacancy in one of the registration sub-districts of that city. The election was strongly contested, three candidates being about equally supported. One of the candidates was a medical practitioner, who had been acting as interim registrar pending the appointment of a gentleman to fill the office. This medical candidate was defeated by a stratagem on the part of one of his opponents, who, in supporting a rival candidate, is reported to have expressed astonishment that "anyone should propose a medical man for this office after the remark of the Registrar-General received a few weeks ago, to the effect that if medical men were appointed, guardians must not complain if the professional engagements of the registrar caused trouble or delay." The friends of the medical candidate were thrown off their guard by this announcement of what sounded very much like official disapproval of medical registrars, and, after an expression of regret by several supporters at their inability to vote for him in the face of the disapproval of the Registrar-General, his candidature was withdrawn, and one of the other candidates was elected. Considering the fact that nearly a hundred and fifty medical practitioners in different parts of England and Wales hold the office of registrar of births and deaths, and that in Ireland all registrars are medical practitioners, it is not surprising that this supposed expression of official opinion adverse to the appointment of medical practitioners as registrars created some astonishment. It led, however, to some inquiry into the facts of the case; and it has turned out that the letter which was so made use of for electioneering purposes to defeat a dangerous candidate, instead of having been penned a few weeks since by the present Registrar-General, was written by the late Registrar-General, Major Graham, and bears date Dec. 1876, nearly five years ago. Moreover, the letter itself was not only misrepresented as regards date and authorship, but does not bear the interpretation which for a special purpose was put upon it. The letter was written to a private individual who had made a complaint against a medical registrar for a supposed neglect of his duties, and ran as follows: "If boards of guardians think proper to nominate as registrars of births and deaths medical practitioners, the public, I think, must sometimes excuse regular attendance at office at a stated hour, when perhaps they are administering relief in a case of life and death." It was certainly unfair to use this letter as an expression of opinion adverse to the appointment of medical practitioners. It appears only to have been intended to excuse the non-attendance of a medical registrar at his office during the hours usually devoted to registration business on an occasion which led to a complaint from a member of the public. It is easy to conceive that even relieving officers, who constitute a large majority of registrars of births and deaths, may at times be prevented by the duties appertaining to their union appointment (such as the

removal of lunatics) from attending at their registering offices on special occasions at the prescribed hours. It would not be more unreasonable to urge such occasional inability of relieving officers as an argument against their appointment as registrars of births and deaths, than was the misconstruction of the foregoing letter written by the late Registrar-General. It is due, however, alike to the present Registrar-General and to the medical registrars who hold appointments under that official, that the profession and the public should understand that there was not the slightest ground for attributing to him the expression of an opinion adverse to the appointment of medical practitioners as registrars.

FARR TESTIMONIAL FUND.

THE present appears a fitting time to remind the public and the profession that the net results of the efforts of the Committee, formed more than twelve months ago, to raise and present to Dr. William Farr, C.B., F.R.S., a testimonial on his retirement from the public service, does not yet exceed £930. This sum has been temporarily invested in the names of trustees; and, disappointed as the Committee feel at the comparatively small success of their efforts, they have decided to close the fund so soon as they are able to obtain the small balance now required to raise the amount of the testimonial to £1000. This sum it is proposed, at the request of Dr. Farr, to invest for the purpose of supplementing the small provision he has been enabled to make for his family. Of Dr. Farr's public services in the cause of health progress and sanitary statistics, it is needless to speak at a time when his co-operation in the approaching Medical Congress will be widely missed both by home and foreign members. We who have intimately known and thoroughly appreciated his official career from its commencement, and who received valuable contributions from him in the early days of this journal, half a century ago, fully share with the Committee their disappointment at the small success of the testimonial. We can now only express a hope that the small sum still required to complete the testimonial will be immediately forthcoming. There should surely be no difficulty in realising the desires of the Committee, and enabling them to close the Testimonial Fund.

THE WEATHER.

IT would be amusing, if the general consequences were less grave than they are, to watch the rapid changes of temperature, and the commingling of climates with which we are just now visited. Tropical heat is succeeded by cold with frost; a dry, almost arid, atmosphere suddenly becomes charged with vapour, and the variations of pressure and wind force are as numerous and disturbing as anything which can be experienced by travellers passing rapidly from clime to clime. The weather-prophets are bewildered, and those who have devoted the best part of their energies to the pursuit of health find the enterprise a very chase of will-o'-the-wisp. Last week we were thinking and writing about the measures necessary to protect the organism from the excessive heat. Before the observations we took occasion to offer were fairly under the notice of our readers and the public the whole condition had changed, and chilly folk were resuming their thick clothing, and all intent on procuring the aid of external heat to preserve their normal bodily temperatures, instead of being interested in measures and appliances for cooling themselves. It may well be that when these remarks are read summer may have returned with its old intensity. How are the weakly and "delicate"—or sensitive—to defend themselves against the mischief-working effects of the sudden and great changes to which they are subjected? There is only one natural precaution, and that is to develop the defensive power of the skin. That organ—for as such we may describe the integument of the body as a whole—is the natural apparatus of safety. It has been made highly sensitive and quickly responsive to all atmospheric changes and conditions; and it has been endowed with the power and function of affording instant relief for any undue tension in the circulatory system. The skin can resist intense heat or cold; it is able to act either as a non-conductor or a vast evaporating surface and cooler, as the emergency requires. The first maxim of health in this ever-changing climate of ours is to secure a thoroughly healthy and active vitality of the skin. Bathing, with hot and cold water alternately, thorough cleansing with soap and brisk rubbing, supplemented by an occasional recourse to the Turkish bath, to secure a complete flushing, as it were, of sweat-glands and ducts, and a general stimulation of the surface circulation, are among the obvious and essential measures of health preservation to which common-sense and science point. The taking off and putting on of clothing to suit the external temperature is a task which requires more attention and energy than most of us can devote to personal considerations If, however, the skin is healthy and in full and responsive activity, the danger of extreme heat or cold will be small, and the special peril of sudden and great changes minimised.

ALLEGED NEGLECT OF A MEDICAL MAN.

ONE of those inquests in which not only the cause of death, but the conduct of the medical attendant, is investigated is reported in the *Bradford Observer* of July 20th. A coal-miner named Joseph Hodgson, of Birkenshaw, aged thirty-eight, on the 8th inst. began to feel poorly. The next day he took to his bed, complaining of pain in his ears. On the following Tuesday his head felt as if "waking up," and his wife sent for Mr. Steele of Gomersal, who sent a bottle to "relieve" the pain. After this time the patient was delirious. As the doctor did not call the next day repeated messages were sent to him; on the third occasion the wife of Hodgson went and asked Mr. Steele to come. There is a discrepancy as to what Mr. Steele said. Mr. Steele was explicit at the inquest in saying that he told the messengers to get another doctor, as he could not attend, being engaged with a midwifery case. Mrs. Steele confirmed this statement. One of the messengers denied that Mr. Steele advised getting another doctor; but he admitted that Mr. Steele said he could not go till the afternoon, having a birth to attend. The wife of the deceased said that Mr. Steele said he had been at Birkenshaw once that day (Wednesday), and "that he should not go again for anybody." On the Wednesday afternoon Mr. Baker of Hill Top, Gomersal, was called in to see the patient, and found him with all the symptoms of meningitis, of which he died on Friday. The post-mortem examination revealed corresponding appearances of the membranes on the top of the brain. The jury, after hearing all the evidence, returned a verdict of "Death by natural causes," and added an expression of opinion that there was moral blame on Mr. Steele in that he did not attend the deceased after sending him medicine. The coroner reflected on Mr. Steele for prescribing without seeing the patient; but Mr. Steele was quite right in saying that this in practice is sometimes inevitable. The case is a very painful one, and the discrepancies of statement do not enable us to give a very decided judgment. The case was so serious—and, we will add, so rare—as to excite great sympathy with the patient's family. But it is only fair to put ourselves in the position of a medical man with conflicting claims on his attention, in the form of an urgent midwifery case in one village and a case of uncertain character in another. It is easy to say that a medical man

should not accept two cases of urgency, but such a statement would imply great inexperience of medical work and want of reflection. A doctor must accept urgent cases as they arise; especially he cannot determine the hour at which a lying-in woman shall call him to fulfil his engagement to her, and the only thing he can do, not being ubiquitous, is to recommend, in regard to any rival call, that another medical man be consulted. This is what Mr. Steele did, and if any blame attaches to him, it is that he did not do so more explicitly.

THE HARVEY STATUE.

THE arrangements connected with the unveiling of the statue of Harvey at Folkestone on Saturday next, Aug. 6th, by Professor Owen, are now nearly completed. It is expected that there will be a large concourse of doctors and others on the occasion, amongst whom the following will probably be present—Dr. Owen Rees, Dr. Sieveking, Dr. Duckworth, Mr. Erichsen, Professor G. E. Paget, Mr. John Simon, Mr. Mitchell Henry, M.P., Dr. J. T. Banks (Dublin), Dr. Philipson (Newcastle-upon-Tyne), Professor W. Moore (Dublin), Dr. Klein, Dr. A. Gamgee, Professor Struthers (Aberdeen), Professor T. Stoker (Dublin), Sir E. Watkin, Bart., M.P., Dr. Talfourd Jones, Dr. S. Gordon (Dublin), Professor Macalister (Dublin), Professor H. W. Acland, Mr. Henry Power, Mr. John Gay, Professor Rutherford (Edinburgh), Dr. C. West, Professor Littlejohn (Edinburgh), Dr. H. C. Bastian, Dr. W. J. Little, Dr. W. H. Broadbent, Dr. J. G. Glover, Dr. R. W. Reid, and a large number of foreign physicians and surgeons. A small bust of the much-admired head of the statue is now on view in the western gallery of the Sanitary Exhibition at South Kensington, and can be had either in terra cotta or imitation bronze. A reduction of the whole statue is also contemplated by the sculptor, Mr. A. B. Joy, and will be completed if a sufficient number of subscribers should order it. The names of intending purchasers can be entered at a stand near the busts in the western gallery of the Sanitary Exhibition.

NOT QUITE MAD ENOUGH FOR AN ASYLUM.

THERE does not appear to be any immediate prospect of such a measure of reform as would suffice to place the law relating to lunatics on a satisfactory footing. And while matters remain in their present position it is idle to expect that the welfare of the partially insane or the safety of the general public will be duly considered by authorities responsible for the administration of justice. A recent case aptly illustrates the difficulty. A young man with "a mission" feeling impelled to warn the inhabitants of the city of its impending doom, and choosing the steps of the Royal Exchange for his rostrum, was brought before one of the City aldermen at the Mansion House. He was examined by a medical man, who declared him to be of unsound mind, and it was ascertained that he had been in Bethlem Hospital. Nevertheless, the alderman let the prisoner go with "a warning," and, as it would appear, did not even take the precaution of placing the young man in the custody of his friends. We quite understand the difficulty, and pity rather than blame a magistrate who either boldly cuts the Gordian knot by ignoring the law, or in any way evades the difficulty of dealing with a case of partial insanity. It is, however, necessary to face the facts. Here was a man under the delusion that London is shortly to be consumed by fire, and that he was sent, like a prophet of old, to warn the people of their danger. It may be argued that the so-called "delusion" and the "mission" were not in themselves more outrageous than many of the delusions and missions by which possibly some persons are influenced to propound extreme views of spiritual danger, and to preach the need of urgent measures to "escape the wrath to come." We are not prepared with any sufficient reply to this reasoning. There is probably no test which, roughly applied, will enable the lay public to discriminate between insanity and enthusiasm. In kind the two mind-states are, so far as the surface indications go, identical. The recognition of madness in many forms of monomania and "moral insanity" is, like the recognition of general paralysis and locomotor ataxia in their early stages, a diagnosis which can only be performed by a physician skilled in the branch of medicine to which these morbid conditions appertain. There is only one safe course to pursue in these cases, and that is to refer the question to a medical man, and to act on his judgment. In this instance the case seems to have been referred, but having obtained the "opinion," the alderman declined to act on it. We are very far from suggesting that all the subjects of delusion should be sent to asylums, but the law makes a delusion the test of insanity; and having ascertained that a man has a delusion, it is hard to see with what propriety he can be allowed to go at large.

INDIAN MEDICAL SERVICE.

A STATEMENT has appeared in some of the Indian papers to the effect that the Government is considering the expediency of allotting a certain number of nominations for the Indian Medical Service to the principal medical schools, instead of the present system of admission by competitive examination. The reason assigned for the proposal is stated to be the fear that the large proportion of natives who have recently joined the service will tend to lower its status, and interfere with the scheme for the unification of the British and Indian Medical Departments. It does not appear to have occurred to them—or probably they were not aware—that the clause in question is a mere transcript from the Royal Warrant of 2nd December, 1879, regulating the appointment of officers in the Army Medical Department. The mode of appointment "by nomination by the governing bodies of Public Schools of Medicine in the United Kingdom or in the Colonies" is merely permissive, when the Secretary of State for War may think proper to fill up vacancies in this manner, and the candidates thus introduced are never to exceed half the number required. The clause in the Warrant was based on the report of Lord Cranbrook's Committee, and the object of it was to establish a closer connexion between the Medical Schools and the Army Medical Department. "By this arrangement," the committee said, "the efficiency of each probationer will be vouched by his school; and on the other hand the Schools, sensible of their responsibility and of the prizes placed at their disposal, will, we hope, become rather agents for procuring eligible candidates than opponents—as they have too often been—of the Army Medical Department." From this it will be seen that the proposed measure was recommended and the clause adopted without any reference whatever to the cause assigned for it by the Indian papers. We may add, that the Secretary of State for War has not yet deemed it advisable to bring into operation this permissive regulation.

THE PLYMOUTH PROVIDENT DISPENSARY.

THE pecuniary terms of this Dispensary, established in 1869, are: For an adult member 1*d.* per week; for an adult member over sixty years of age 2*d.* per week; for a man and his wife 2*d.* per week; for a man, his wife, and all children under fourteen years of age, 3*d.* These terms are certainly an improvement on those of the Norwich Institute, the more so as they do not, we assume, include midwifery. But they are still very inadequate to the proper remuneration of the medical services of the staff, which includes three con-

sultants and nine general practitioners. One very obvious point is overlooked in these arrangements—that the chief trouble of medical men is with the children under fourteen, who in the above arrangement are attended virtually for one penny per week. Let any political economist with a knowledge of medicine consider the trouble that one infant below a year, with diarrhœal disease, may give a practitioner in such a season as this, to say nothing of a family stricken with scarlatina, and he will see how miserable must be the pittance, after the payment for drugs, that accrues to the medical man. The circular before us is addressed to the public, informing it that all "eligible persons" can be provided with medical advice, attendance, and medicine." Query—Who are eligible persons?

POOR-LAW HOSPITAL ACCOMMODATION IN GLASGOW.

A PROJECT for providing a hospital for the sick poor in Glasgow by a union for this purpose only of the Barony and City parishes has been rejected by the latter. The managers of each met in conference, aided by Mr. Malcolm M'Neill, of the Board of Supervision, who had suggested the union as the readiest and most economical way to increase the accommodation much wanted in both parishes, and also to assist in the better classification of the paupers in their workhouses. The proposal was a good one, and had it been carried out we should have had a hospital such as the Highgate Infirmary and others, the result of the combination of parishes in London. It is much wanted, and it is unfortunate the City Board does not grasp the suggestion. Four or five years ago it endeavoured to throw on the District Lunacy Board the burden of providing an asylum for its insane, well knowing the difficulties that Board would have to contend with, and the result is that matters are at a standstill. Since its rejection of the union hospital, it has proposed to build a house for 400 inmates on its present grounds, which are already overcrowded; but it is to be hoped the Board of Supervision will veto the proposal. It is much to be lamented that that Board has no medical inspector of workhouses, and the time has now come when such an appointment is called for, seeing there are sixty-three poorhouses in Scotland, in which, according to the latest returns published, nearly 11,000 of the inmates are returned as having been on the sick-list during the half-year ending Dec. 31st, 1879. Meanwhile we hope the City Board will reconsider its decision.

THE CONTAGIOUS DISEASES ACTS.

IN addition to the medical evidence laid before the Selec Committee to investigate the working of these Acts, which has been amply sufficient to show their advantages from a purely medical and sanitary point of view, several important witnesses have given most striking evidence as to their benefits when regarded socially. The Select Committee has examined the Rev. Thomas Suffield, a Congregational minister at Woolwich; the Rev. E. P. Grant, the Vicar of Portsmouth; the Rev. Prebendary Wilkinson, of Plymouth; and Mr. Adam Stigand, the Chairman of the Chatham Local Board. These gentlemen have all paid great attention to the local working of the Acts, and are unanimous in their testimony as to the benefit effected in the towns in which they reside. They agree in the opinion that to the operation of the Acts is due a large decrease in the amount of open immorality and clandestine prostitution, and that if they were repealed private prostitution would largely increase. It is especially on the question of the reclamation of fallen women that they lay great stress, and each of the witnesses adduced instances from his own knowledge of the value of the Acts in this important particular. The alternative of voluntary hospitals for compulsory detention was thought by them to be most unsatisfactory; women would not enter them, much less be detained in them. With regard to the abuse of their powers by the police, they were also unanimous; they knew of no single authenticated case in which this had taken place. The medical evidence as to the value of the Acts has been so frequently placed before our readers that it is needless to recapitulate its chief points. It is, therefore, with the more satisfaction that we direct attention to the social benefits derived therefrom, as attested by witnesses whose position places their evidence beyond cavil, and who at first necessarily regarded the Acts with suspicion, if not with absolute repugnance. The arguments for their continuance in garrison towns are overwhelming, from both a sanitary and a social standpoint, and the supporters of their extension to the larger maritime and manufacturing towns, such as Liverpool, Bristol, Hull, Birmingham, Wolverhampton, &c., will derive great support from the evidence now forthcoming, in spite of the fact that the witnesses have undergone a most stringent cross-examination by those members of the Select Committee who are known to be most determined in their advocacy of the repeal of the Acts.

PAYMENT OF CIVIL SURGEONS IN CHARGE OF TROOPS.

IN the recently-issued Revised Army Regulations an important alteration has been made in those which refer to the payment of civilian medical practitioners in charge of detachments of troops. When no army or militia medical officer is available the officer commanding a detachment is authorised to employ a civilian practitioner, who must possess the double qualification, and who will be paid according to the following scale:—For any number less than ten officers and men, at the rate of £5 per annum; from ten to twenty-five, £10; for every twenty-five officers and men, £10; and for every fractional part in excess of twenty-five, £10. The payments are to be calculated monthly on the highest number present with the detachment during each month, including any other military parties at the same station. The employment is to be considered as temporary, and may be terminated whenever it is deemed advisable without previous notice. The regulation makes no provision for the women and children of the detachment, but we presume this is merely an oversight which will be remedied as soon as it is brought to the notice of the War Office. According to this scale the minimum remuneration will be at the rate of 8*s.* per head per annum, and the maximum 15*s.* 5*d.* We do not observe any regulation as to the supply of medicines or the scale on which these are to be paid for if found.

THE CATERHAM IMBECILE ASYLUM.

THE report of the Committee of Management and that of the Medical Superintendent (Mr. Stanley Elliot) of this great asylum of the Metropolitan Asylums Board for 1880 show that at the beginning of 1880 the asylum contained 2031 patients; that during the year 217 patients were admitted, 46 were discharged and 159 died, leaving 2043 under treatment on the 31st December last. Mr. Elliot says of the patients admitted that, as was to be expected, their mental condition is of a very hopeless nature, and that "the number of cases associated with epilepsy has been unusually large." He complains of the looseness and want of precision in the medical particulars accompanying the order of admission, and has the following observations deserving attention: "Among the admissions there have been several cases in which the only symptoms indicative of mental disorder were the impaired faculties and harmless restlessness incidental to

old age; and these, in my opinion, might with advantage have been retained and adequately treated in the infirmary wards of workhouses. It is also my duty to draw your attention to the enfeebled and exhausted bodily condition in which patients are sometimes sent. In a few cases it has been necessary to have them at once carried to bed and restoratives administered, lest they should succumb to the shock and fatigue consequent on their removal." On the predisposing causes of insanity among the patients treated in the asylum, Mr. Elliot says:—"I am of opinion that the combined causes of hereditary predisposition and alcoholic intemperance, the latter in the majority of cases indirectly rather than directly, will account for the mental condition of a large proportion of our population." The number of patients discharged recovered during the year was thirteen, and it is satisfactory to learn that several of these patients were able to earn their own living in the outer world. The greatest number of patients resident in the asylum on any one day was 2049, the average number resident during the year being 2021. The mortality of the year (159)—9·70 per cent. males and 6·31 females—was low. The number of patients industrially employed was 651, about one-third of the number resident. Mr. Elliot speaks highly of the good effects of the Turkish bath in relieving functional bodily disorder, which so frequently accompanies mental disease. The sanitary condition of the asylum was satisfactory throughout the year, and its general administration secured the approval of the Commissioners in Lunacy.

ANATOMY OF THE MEDULLA OBLONGATA AND SPINAL CORD.

A MOST valuable series of specimens, about 500 in number, showing the main points in the anatomy of these centres in the calf, pig, macacus, and man, are being exhibited by Dr. Laura of Turin at the International Medical and Sanitary Congress, South Kensington. Every point of importance is abundantly illustrated in these remarkable specimens, and we wish to call especial notice to them, as we feel that they are rather out of place amongst drugs, invalid chairs, surgical instruments, &c., and we fear that many will pass them by without noticing them, unless their attention is particularly *called* to them. Dr. Laura will give a demonstration of the more important points in the anatomy of the human medulla oblongata, in so far as he is at variance with other observers, at the Museum of the International Medical Congress on Friday, August 5th, at 3 P.M. The origin of the more important cranial nerves can be most readily followed in his specimens.

IRON IN THE LIVER AND SPLEEN.

THE amount of iron contained in the liver and spleen in certain morbid states has been investigated by Dr. Stahl of Zurich. The largest amount of iron in the liver was found in the case of an old man, aged seventy-four, who died from general anæmia, the amount being ·614 gramme, six times as great as the amount of iron (·091 gramme) contained in the spleen in the same case. In normal organs the quantity of iron found was: in the liver ·167 and ·201 gramme, in the spleen ·217 and ·268 gramme. The large quantity of iron in the liver of the anæmic patient might be regarded as the result of the amount of iron which had been given to him; but this explanation is improbable, because Nasse found that the administration of large quantities of iron for a month had no appreciable influence on the amount of iron in the liver. This amount does not seem to be related to the quantity of iron in the blood of the organs, and it is apparently contained in their parenchyma. In one case the following is the order of the amount of iron contained in the several tissues: 1, blood; 2, spleen; 3, liver; 4, heart; 5, bile. In the last only a trace of iron was found in one case and merely a small quantity in another—a result which is at variance with that obtained by some observers.

INSANITARY CONDITION OF THE ISLE OF WIGHT.

MR. BARFORD, of Wellington College, Berkshire, writes to us as follows:—"Seeing in your recent numbers reference to the insanitary condition of the Isle of Wight, it may be of interest for me to report the subjoined cases.

"A gentleman and his wife went last year for their autumnal holiday to the southern shore of the island, and spent, as they at the time assumed, three weeks for health-recruiting and rest. But towards the end of their sojourn, the one was seized with unusually severe diarrhœa, and the other with vomiting and rigors. On their return home, the wife continued to sicken, and typhoid fever, of an unmistakable kind, developed, to which she succumbed at the end of the fourth week. The husband also developed typhoid simultaneously with the wife, and only just escaped death, making a tedious recovery. Both these cases were seen in consultation with me by Sir William Jenner, so no doubt can exist as to their nature. No other case of typhoid had occurred in or near their home. The date of sickening and the subsequent progress of the disease left no doubt that it must have been contracted in the Isle of Wight. Two other patients of mine went for a walking tour round the Isle of Wight last autumn. One had diarrhœa, brought on, as he thought, by inhaling offensive air in the open street, and the other spoke of the prevalence of bad odours along the southern coast of the island, from which he was considerably indisposed."

POISONING BY CHLORATE OF POTASH.

WE have been favoured with a fuller report of an inquiry by the Belfast coroner into the cause of death of Charles Mullins, a constable of long standing, and much respected, in the Royal Irish Constabulary. There seems no reason to doubt that death was caused chiefly by two ounces of chlorate of potash. Dr. Smith described the symptoms as those of inflammation of the stomach and congestion of the kidneys. The unhappy accident occurred in this way. Mullins had a sore throat, and was seen by Dr. W. Aickin, who prescribed for him (1st) two ounces of chlorate of potash in powder, to be used for a gargle, as we shall see, (2nd) a diaphoretic mixture, and (3rd) a double seidlitz powder. The chlorate of potash, instead of the alkaline portion of the seidlitz powder, was mixed with tartaric acid, and led to the fatal result. Dr. Aickin's instructions were that a teaspoonful of the chlorate of potash was to be mixed with a tumblerful of water and used as a gargle. The next morning, after taking the potash, there being no action of the bowels, Mullins expressed his intention to take a "physic of salts." No comment on this resolution is made either by Dr. Aickin or Dr. Smith, but such a "physic" might materially add to the irritant action of the chlorate. The jury found that the deceased died from swallowing two ounces of chlorate of potash through misadventure, and that no blame could be attached to any person or persons.

CHOLERA IN INDIA.

THE last advices from Meean Meer report that cholera was still prevalent in the Royal Artillery and 2nd Battalion 8th King's Regiment. Camps had been formed at Bakiwal and Chunga Munga. On Friday, the 28th of June, seven fresh cases occurred in the regiment, of these five proved fatal, one being the wife of the Regimental Sergeant-Major. Most of the cases originated at head-quarters in Meean Meer. Chunga Munga is considered a very good site for a cholera camp, the forest affording

excellent shade from the fierce heat of the June sun. The troops there are healthy, only twelve men having been admitted to hospital since arrival out of a strength of 360. With the prompt removal of the affected companies to camp, it is believed the epidemic will cease. The advent of the rains was daily looked for; their arrival, it was thought, would wash away the remaining germs of infection in the atmosphere.

TRICHINÆ CYSTS.

THE mode of formation of the cyst of trichina has been studied by M. Chatin and described in a communication to the Académie des Sciences. It was formerly said to be formed partly from the contractile tissue, and partly by a secretion from the nematoid, but this opinion was based only on some apparent differences in the thickness or aspect of the cyst wall, and not on any careful study of its formation, which necessitates the examination of animals dying or killed in different stages of the affection. When it arrives in the muscles the worm forms adhesions with the interfascicular tissue in which rapid changes occur. The elements increase in size, and during the growth of the protoplasm it assumes the appearance of an amorphous mass, in which, however, nuclei and vacuoles can be seen, which seem to indicate that the mass consists really of aggregated cells. By the growth of this the primitive fibres are compressed. In the new protoplasm fine proteoid granulations are first observed, and then other granulations which present all the reactions of glycogen. Then follow important changes in the periphery of the granular mass, containing the trichina, now curled up in the interior; the outer surface becomes distinctly thickened and indurated, and may then become lamellated or present granulations or folds. The sarcolemma takes no part in the formation of the cyst except occasionally furnishing it with a purely adventitious layer. Moreover, when the nematoid contracts its first adhesions to the sarcolemma, and not to the interfascicular tissue, it rapidly dies without determining a new formation.

ARMY MEDICAL OFFICERS' MEMORIAL.

THE officers of the Army Medical Department have decided to erect a memorial to their comrades who lost their lives in the late campaigns in Afghanistan and South Africa. President: Sir Wm. M. Muir, K.C.B., Director-General. Committee of Management: Surgeons-General Thomas Longmore, C.B., G. A. F. Shelton, and S. H. Fasson. Hon. Secretary: Surgeon-Major Alfred Clarke, 6, Whitehall-yard, S.W. Subscriptions are requested to be sent to the Hon. Secretary with as little delay as possible, as, until the amount raised is known, the form which the memorial shall take cannot be decided on.

THE BROMPTON HOSPITAL AND THE CONGRESS.

IN addition to the hospitals already announced as open for inspection on August 4th and 5th, we are requested to state that the Brompton Hospital for Consumption will be open to members of the Congress on August 4th at 2 P.M., when the new buildings will also be shown.

THE Medical Acts Commission met at 2, Victoria-street, Westminster, on the 22nd, 23rd, and 25th instant. The evidence of Mr. J. S. Gamgee, Professor Spence, Dr. R. H. Semple, Dr. H. A. Pitman, and Mr. Christopher Heath was taken. There were present:—The Earl of Camperdown (Chairman), the Bishop of Peterborough, the Right Hon. W. H. F. Cogan, the Master of the Rolls, Sir William Jenner, Mr. Simon, C.B., Professor Huxley, Professor Turner, Mr. Bryce, M.P., and Mr. John White (Secretary).

AT a meeting of the Lower Thames Valley Main Sewerage Board, on the 20th instant, it was decided to adopt the plan recommended by Mr. Hawksley. This plan consists in concentrating the sewage at Barnes-common, from thence laying down a pipe to the mouth of the Darent below Erith, and there discharging it into the river at ebb-tide.

THE Royal Commission on the Medical Acts having invited the Council of the Medical Defence Association to make a statement of the views of the members of the Association on medical reform, a meeting will be held at St. James's Hall to-day (Friday) at 4 P.M., to discuss the question. Dr. B. W. Richardson, F.R.S., will preside.

THE Bradshaw Lecture will be delivered at the Royal College of Physicians by Dr. Vivian Poore on Thursday, August 18th, at 5 P.M. The subject will be "Nervous Affections of the Hand."

THERE is at the present time in Charing-cross Hospital, under the care of Dr. Julius Pollock, an interesting case of aneurism of the aorta, with much bulging of the chest and other characteristic symptoms.

DR. NICHOLAS WHYTE, Coroner for the City of Dublin, who was seriously indisposed, has now recovered sufficiently to resume his official duties.

DR. CAMAC has been elected coroner for Dunluce, county Antrim.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL INSPECTORS OF THE LOCAL GOVERNMENT BOARD.

On a Series of Cases of Acute Specific Diseases (similar to that observed in the Welbeck poisonings), by Dr. Ballard.—This report relates to the particulars of an inquiry made by Dr. Ballard in February last concerning a serious illness with which certain persons were seized in Nottingham after having eaten of hot baked pork, purchased at a shop in that town. Fifteen persons, members of five different households, living in the neighbourhood of the shop, suffered from the illness, and one of them died from it. In each of the five households in which the sickness occurred everyone who ate of the pork suffered more or less. From twelve to thirty-four hours after the consumption of the pork the persons attacked with sickness began to suffer from abdominal pain, soon followed in some of them by headache, faintness, shivering or chilliness, or by purging; in one the sickness commenced with headache, in one with headache and shivering, in two with purging, and in one with sickness, fainting, and rigors. The "slight" cases were those in which the symptoms were limited to diarrhœa or to headache, with nausea and pain in the back and abdomen, or to headache and diarrhœa. But even these slight attacks, lasting for from one to four days, weakened the subjects of them considerably. The more severe cases exhibited in various degrees the following symptoms, one or more of which were, however, sometimes absent—viz., severe '(sometimes described as "cramp") pains in the abdomen and diarrhœa, the discharges, where noted, being dark-coloured, watery, and offensive; vomiting or sense of sickness, headache, sense of prostration, and faintness or fainting, shivering or sense of coldness early in the illness, and sense of heat and feverishness at a later period; coated tongue, and loss of all appetite. These were the symptoms which were most constant. Other symptoms observed in some few of the cases were thirst, aching or shooting pains in the back or limbs, or a sense of general stiffness, and, in one case, muscular twitchings of the limbs. In one case there was cough with pain in the side, and in two cases an

eruption like herpes appeared round the mouth. The illness lasted mostly several days, and resulted in much physical weakness. Some of the cases had not thoroughly recovered from the diarrhœa when Dr. Ballard saw them, eight or nine days after the commencement of illness.

On post-mortem examination of the body of the patient who died, the chief lesions found were failure of parts of lungs to collapse when the chest was opened, these parts being of very dark colour and firm to the touch. This was the character of the whole of the lower lobe of both lungs, of the middle lobe of the right lung, and of all but the upper half of the upper lobes of both lungs. On section these portions were found to be deeply engorged and almost non-crepitant. There was reddening of parts of the mucous membrane of the small intestines, particularly of the jejunum, and ramified injection of the vessels of the ileum, extending to the borders of the agminated and solitary glands, but not beyond. The spleen was small, shrivelled-looking, flabby, and friable. Specimens of fluids and tissues were sent to Dr. Klein for examination microscopically, and for cultivations and inoculations, and the principal results he obtained may be thus summed up. Bacilli (similar to those discovered in the Welbeck inquiry) were found in varying numbers in the blood, pericardial fluid, juice expressed from the lung, in the air-vesicles and the bloodvessels of the lung, in the tissues of the stomach and ileum, in the spleen within and around its large vessels, in and around the vessels of the kidney, and in the connective tissue between the tubuli of the renal cortex. There were certain degenerative changes in the kidney; also hæmorrhagic infarction of the lung tissue, bacilli being found, with or without spores, amongst the blood, filling the air-vesicles, and in the bloodvessels; inflammation of Peyer's glands of the small intestine and a few bacilli in the submucous tissue; slight interstitial hepatitis. Guinea-pigs and mice, inoculated with the blood, pericardial exudation, and lung juice, became diseased; and in all, after death, pneumonia, accompanied by pulmonary hæmorrhage, was found; in some also peritonitis, and in others enlargement of the liver and spleen. Bacilli were found in the blood and exudations of some of the above inoculated animals. The similarity of the cases above described, and of the post-mortem appearances in the one fatal case, to the cases observed in the Welbeck poisonings, is most striking, and the results of experiment as obtained at the hands of Dr. Klein were also similar. But in the present instance none of the material suspected of producing the illness was obtainable. The evidence pointed to the baked pork consumed by the sufferers, or to something taken with it, as the determining cause, but this assumption is not without difficulty. "It is scarcely credible," as Dr. Ballard observes, "that bacilli, if originally present in the pork, should have retained potency for evil after such a prolonged baking as sufficed to disorganise the meat tissue, besides which the escape of other customers after eating of other portions of pork purchased at the same time from the same pork-butcher makes any harmful quality of the joint itself extremely difficult to understand." Dr. Ballard suggests various possible explanations of this as yet insoluble difficulty, but none of which help very much towards the solution.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Liverpool.—Dr. Stopford Taylor reports for 1880 a birth-rate of 38·2 per 1000 population, and a death-rate of 27·2, the birth-rate being at the annual average of the previous ten years, and the death-rate somewhat below a like average (28·9). The Local Government Board, it appears, has been in communication with the Health Committee of the Corporation on the question of the prevalence of diarrhœa in the city, in connexion with the inquiry which is now being conducted on the subject by Dr. Ballard, and Dr. Taylor includes his report to the Health Committee on the summer diarrhœa of 1880 in the city in this report. In Liverpool the deaths from diarrhœa in 1879 numbered only 216, but in 1880 no less than 813 occurred, of which 462 were of children under one year of age. Dr. Taylor directs attention to the remarkable differences of the meteorological conditions of the two summer seasons, particularly in reference to temperature; but he observes in respect to the high temperature which prevailed in the third quarter of 1880:—"Heat by itself will not produce diarrhœa, but acting upon organic matter it promotes decomposition, filling the atmosphere with noxious emanations, which, with the exhalations from a crowded population, envelopes as in a fog the ill-ventilated parts of the city. Whether any specific organisms are produced or their growth and productiveness fostered under the influence of a high temperature has not been decided, but neither heat nor dirt alone will produce diarrhœa; but, combined, the result is certain." Further, Dr. Taylor states that, although the disease was distributed over the whole of the city, the greatest mortality occurred in those districts where houses and people were most densely crowded together, and he adds that the malady was greatly aggravated in sublet houses. With respect to the prevalence of "fever" in Liverpool, 87 of the deaths were ascribed to typhus. No less than 2786 cases of infectious disease were reported to the sanitary officials during the year, and of these 904 were removed to hospital, 369 by the agency of the sanitary officers. When a case of infectious disease is reported, the house, Dr. Taylor tells us, is visited and every information and assistance given for the removal of the patient, if desired, and disinfection of the clothing, house, &c. One thousand four hundred and sixty-three post-cards were sent to the head-masters of the various schools, informing them that children from infected houses attended their schools; similar information being given to the School Board. Liverpool, it appears, has four hospitals for the treatment of infectious disease, one belonging to the select vestry, two to Boards of Guardians (Poor-law institutions), and the fourth is a voluntary institution in Netherfield-road, to which the Corporation, as sanitary authority, is a large donor and subscriber, having contributed £5000 to its erection. Moreover, for an annual subscription of £250 the hospital puts twenty-five beds at the disposal of the medical officer of health, at the reduced charge of 7*s.* per week, payable by each patient. The arrangement, neither in a pecuniary nor a sanitary sense, seems to befit the sanitary authority of a great corporation like that of Liverpool. The number of beds placed at the command of the authority seems insufficient for the sum paid to the building fund, and petty, having regard to the needs of the sanitary administration of the city.

Brierley Hill, Urban (Staffordshire).—Mr. George Ashmead reports for 1880, among a population of 11,275, a birth-rate of 41·5 living, and a death-rate of 20·48, as compared with 19·45 in 1879. An epidemic of scarlet fever was the most notable feature in the sickness of the district, and had to be combated by house-to-house visitations, the distribution of disinfectants, the removal of nuisances, and the exclusion of children living in infected areas from school, Brierley Hill obviously possessing no public means for isolating the sick. The report is very meagre, and gives little information which would enable persons outside the district to form a clear idea of the sanitary condition of and progress made in the district. But it may be concluded that the water-supply is, in too many instances, impure, that nuisances are not rare, and that the regular removal of night-soil to which the medical officer of health refers must be regarded with some doubt in view of the nuisance from certain privies he describes.

Weston-super-Mare.—Mr. C. V. Hitchins reports that the mortality of this town during the June quarter was at the low annual rate of 11·49 per 1000 living, estimated upon the population numbered at the last census (12,872). We regret to learn, however, that although the infectious diseases hospital of the sanitary authority has proved very serviceable to the district, the charges for admission imposed upon patients deter persons of small means from taking advantage of it.

Scarborough.—Dr. Taylor, in his report for the quarter ending the 30th June, gives the death-rate of the quarter at 16·89 per 1000 of the population, the average rate during the previous eight years having been 18·60. The deaths from zymotic diseases were also very low.

THE SMALL-POX HOSPITAL SHIP "ATLAS."

At the meeting of the Metropolitan Asylums Board on the 23rd inst. a communication was read from the Local Government Board relative to a complaint made by Messrs. Rennie, the marine engineers, of the position of the small-pox hospital ship *Atlas* with reference to their works. It appears that their workmen object to work at the river-side opposite where the ship is moored. In their answer to the firm the Local Government Board state that the spot where the vessel is moored was selected by the Conservators of the Thames; but the part of the river

was chosen by the Local Government Board themselves, the Asylums Board having no responsibility in the matter. A deputation was also received from Hackney, and a protest read from the Board of Guardians there as to the ambulance station opened in connexion with the hospital ship in London Fields. The absurd position was taken by the spokesman of the deputation of regarding an ambulance station as being as dangerous to a neighbourhood, in view of the spread of small-pox contagion, as an assemblage of small-pox patients. By implication, it would seem from the deputation that the danger of small-pox cases scattered in houses about a district was infinitesimal, and that the danger began with the attempts made for their removal for purposes of isolation. It would seem, indeed, as if, according to the deputation, the contagion of small-pox was conditional upon efforts being made for the isolation of patients!

THE METROPOLITAN WATER-SUPPLY.

Colonel Bolton, the water examiner for the metropolis, in his report for June speaks favourably of the state of the water in the Thames during the month, and of the state of filtration in which the water was delivered for consumption. With respect to the Grand Junction Company, to whom the recent mishap in supply has recently occurred, it would appear that they are busily engaged in extending continuous supply in their district and constructing new filter beds, a large reservoir for filtered water, and a new 30-inch main. When these works are completed the resources of the Company, Col. Bolton states, will be increased one-third. Is it possible that during the progress of the works to improve the supply of the Company, the administration of the existing works has been neglected to the extent of the deficiency of water recently experienced within the area of the Company's distribution?

NORTH DUBLIN UNION.

The half-yearly report of Dr. MacCabe, Local Government Board Inspector, states that the sanitary condition of the workhouse is fairly satisfactory. The revised measurements show that the workhouse premises are capable of accommodating 2079 inmates, and that at the date of inspection there were 2187 inmates, or 108 in excess of the accommodation, and inasmuch as apartments intended for day-rooms are still used as sleeping wards, Dr. MacCabe is of opinion that the buildings are overcrowded.

The Ladies' Sanitary Association has added to its popular tracts one entitled "About some Girls," and which is particularly devoted to the thoughtless physical trials to which shop girls are too often exposed by the long hours they are required to keep on their feet, in the performance of their duties. The tract to our mind is written too much in the fashion of a semi-sensational sermon, but it is not the less full of sound matter, and is calculated to awaken thought both in the shopkeeper and in his customers, with reference to the subject to which it relates, and we wish it all the success of previous tracts published by th Association.

Lord Clifton has taken Mr. John G. Talbot, M.P., to task, in a recently issued pamphlet, for having at a late meeting of the Metropolitan Asylums Board (as we noted at the time) designated anti-vaccination leagues "murder leagues." Lord Clifton is courteously indignant at a name he respects being thus travestied, and, having bewildered himself by statistics, he endeavours in this pamphlet, but not very successfully, to bewilder others.

The prevalence of scarlet fever in Calne has induced the Local Board to fit up a barn as a temporary fever hospital.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

English urban mortality, under the influence of the recent hot weather, showed a further increase last week. In twenty of the largest English towns, estimated by the Registrar-General to contain in the middle of this year a population somewhat exceeding seven and a half millions of persons, 5003 births and 3465 deaths were registered last week. The births were 183 below, whereas the deaths exceeded by 208, the average weekly numbers during 1880. The annual rate of mortality in these twenty towns, which had been equal to 19·5, 20·7, and 23·1 in the three preceding weeks, further rose to 23·8 last week. The lowest rates in the twenty towns were 14·7 in Bradford, 15·3 in Oldham, 16·9 in Brighton, and 17·1 in Bristol. The rates in the other towns ranged upwards to 25·4 both in Newcastle-upon-Tyne and Leicester, 25·9 in Leeds, 26·5 in London, and 29·1 in Nottingham. During the first three weeks of the current quarter the death-rate in these twenty towns averaged 22·5, against 17·5 and 20·0 in the corresponding periods of 1879 and 1880.

The deaths referred to the principal zymotic diseases in the twenty towns, which in the three preceding weeks had been 498, 579, and 834, further rose last week to 1029; these included 652 from diarrhœa, 108 from measles, 90 from whooping-cough, 85 from scarlet fever, 44 from small-pox, 30 from fever (principally enteric), and 20 from diphtheria. The annual death-rate from these zymotic diseases averaged 7·1 per 1000 in the twenty towns, and ranged from 1·9 and 2·1 in Brighton and Wolverhampton, to 9·3 and 11·7 in Leicester and Nottingham. Measles showed the largest proportional fatality in Liverpool and Sheffield; scarlet fever in Hull, Oldham, Bristol, and Leicester; and whooping-cough in Birmingham. Of the 20 deaths from diphtheria in the twenty towns 9 occurred in London, 4 in Portsmouth, and 3 in Birmingham. The 652 fatal cases of diarrhœa showed a further considerable increase upon recent weekly numbers; the fatality of this disease was greatest in Nottingham, Leicester, London, and Leeds, the rate in London being again much in excess of the average rate that prevailed in the nineteen provincial towns. Small-pox caused 53 more deaths in London and its outer ring of suburban districts, and one in Bradford; no fatal case of this disease was recorded in any of the eighteen other large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which in the six preceding weeks had steadily declined from 1644 to 1112, further fell to 941 on Saturday last, of whom 40 were inmates of the "Atlas" hospital ship, and 243 of the Convalescent Camp Hospital at Darenth. The new cases of small-pox admitted to these hospitals, which had been 141 and 177 in the two preceding weeks, declined last week to 146. The St. Pancras and Islington Camp Hospitals at Finchley each contained 36 patients on Saturday last. In the Highgate Small-pox Hospital the number of patients had declined to 59 at the end of last week; 15 new cases were, however, admitted during the week.

The deaths referred to diseases of the respiratory organs in London, which in the two preceding weeks had been 195 and 168, further declined to 152 last week, and were 18 below the average weekly number in the corresponding week of the last ten years; they included 79 which were referred to bronchitis, and 48 to pneumonia. The annual death-rate from lung diseases, exclusive of phthisis, was 2·1 per 1000 in London last week; in Liverpool the rate from the same diseases was equal to 3·8 per 1000.

The causes of 76, or 2·2 per cent., of the 3465 deaths in the wenty towns last week were not certified either by a registered medical practitioner or by a coroner. In London the proportion of uncertified deaths did not exceed 1·5 per cent., whereas in the nineteen provincial towns it averaged 3·0 per cent. No uncertified deaths were registered last week in Brighton, Leicester, or Bradford; whereas the proportions of such deaths were largest in Wolverhampton, Norwich, and Leeds.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in eight of the largest Scotch towns, having a population now estimated at rather less than a million and a quarter persons, which had been equal to 20·9, 20·4, and 18·9 in the three preceding weeks, further declined to 18·8 last week; this rate was 5·0 below the average rate in the twenty large English towns. The rates in the eight Scotch towns ranged from 10·5 in Greenock, and 13·8 both in Dundee and Aberdeen, to 22·8 in Glasgow and 23·6 in Leith. The deaths referred to the principal zymotics diseases in the eight towns, which had been 91, 76, and 54 in the three previous weeks, rose again to 73 last week; they included 22 from diarrhœa, 15 from measles, 11 from whooping-cough, 9 from fever (typhus, enteric, or simple), 8 from scarlet fever, 8 from diphtheria, and not one from small-pox. The annual death-rate from these zymotic diseases averaged 3·1 per 1000 in the eight towns, and was 4·0 below the average rate from the same diseases in the twenty English towns. This zymotic rate ranged in the Scotch towns from 0·8 and 1·8 in Greenock and Edin-

burgh, to 5·6 and 5·9 in Paisley and Leith. The fatal cases of diarrhœa in the eight towns, which had been 27 and 20 in the two previous weeks, were 22 last week; and were equal to an annual rate of 0·95 per 1000, against 4·5 in the twenty English towns; the largest proportional fatality of diarrhœa in the Scotch towns occurred in Dundee and Leith. The 15 deaths from measles showed a considerable increase upon the number in the previous week, and included 11 in Glasgow and 3 in Paisley. The 11 from whooping-cough included 4 in Glasgow and 2 in Edinburgh, and exceeded the number in the previous week by one. The deaths referred to typhus, enteric, and simple fever, which had been 8 and 4 in the two previous weeks, rose to 9 last week, of which 4 occurred in Glasgow and 2 in Leith. The annual death-rate from "fever" averaged 0·39 per 1000 against 0·21, the average rate in the twenty English towns. Five of the 8 deaths from scarlet fever and 6 of the 8 from diphtheria were recorded in Glasgow. The deaths attributed to acute diseases of the lungs (bronchitis, pneumonia, and pleurisy), which had been 87 and 98 in the two preceding weeks, declined to 79 last week; they were equal to an annual rate of 3·4 per 1000, against 1·8 from the same diseases in London. The largest proportional fatality of lung diseases in the Scotch towns last week occurred in Glasgow, Paisley, and Leith. Infant mortality in the eight towns last week was lower than in any recent week; whereas it showed a marked further increase in the English towns.

HEALTH OF DUBLIN.

The rate of mortality in Dublin last week showed a further increase. The annual death-rate in the city, calculated upon the population enumerated in April last, which in the three preceding weeks had been 18·7, 20·6, and 21·1, further rose to 24·3. During the past three weeks of the current quarter the death-rate in the city averaged 22·0 per 1000, against 24·3 in London and 17·5 in Edinburgh. The 163 deaths in Dublin showed a further increase of 22 upon recent weekly numbers; they included 23, or 14 per cent., which were referred to the principal zymotic diseases, against but 7 and 14 in the two preceding weeks. These 23 deaths from zymotic diseases included no less than 15 from fever (typhus, enteric, or simple), 3 from measles, 2 each from whooping-cough and diarrhœa, 1 from scarlet fever, and not one either from small-pox or diphtheria. The annual death-rate from these seven principal zymotic diseases was equal to 3·4 in Dublin; the rate from the same diseases was equal to 2·1 in London, whereas it was only 1·8 in Edinburgh. The fatal cases of fever, which had been 2, 3, and 10 in the three preceding weeks, further rose to 15 last week, and exceeded the number returned in any week since February last; the annual death-rate from this cause was no less than 2·24 per 1000, and more than ten times as high as the average fever rate in the twenty large English towns. The 3 deaths referred to measles were the first returned during the past four weeks, and the deaths from the other zymotic diseases were but few. The 21 deaths of infants under one year of age corresponded with the low number in the preceding week, while the deaths of elderly persons exceeded the number returned in any week since the beginning of April last.

THE SERVICES.

VOLUNTEER AMBULANCE WORK.

The ambulance class established by Dr. Hime, in connexion with the 1st West York Engineer Volunteers, was inspected by Colonel Drake, R.E., at the inspection of the corps on July 22nd. The corps had been under canvas for a week on the banks of the Derwent in Derbyshire. After the military manœuvres the corps was formed up in a salient angle with the flanks on the river, and the ambulance in the centre. Splints were applied extemporised out of twigs broken from the trees, swords, rifles, &c. Esmarch's bandage was applied in various ways, and stretchers were constructed with rifles and great-coats, and other simple means, and there was a practical demonstration of the mode of lifting and carrying wounded persons. After addressing the corps on military matters, Colonel Drake expressed the great pleasure he felt in seeing the skill of the ambulance class. He hoped an ambulance class would be established in connexion with every volunteer corps, and urged all the officers as well as the men to attend the class. During the week there were a few cases of diarrhœa, which rapidly yielded to treatment, and one case of measles, which was at once removed out of camp. Several of the men suffered from sore feet after the march out, but on the whole the physique of the corps was excellent, and all had benefited from their week's experience of tent life, with plenty of hard work in the open air.

The Indian Government have ruled that the honorary rank of Deputy-Surgeon-General is to be conferred on any officer of the Indian Medical Service who may be appointed Honorary Physician or Surgeon to the Queen—that is, provided his rank or appointment is below the inspectorial grade. This is in accordance with the regulation laid down in the Royal Warrant of December 2nd, 1879, for the Army Medical Department.

The names of Surgeons-Major E. A. Burn, M.A., M.D., R. Dempster, H. Croker, B. Williamson, and G. Birdie have been submitted by the Surgeon-General with the Government of Madras to H.E. the Governor, for promotion to the new rank of Brigade Surgeon. The total number of officers to be selected for the grade is eleven.

Brigade Surgeon Chauncey Irwin, Army Medical Department, has arrived in England from the West Coast of Africa, where he has been performing the duties of Senior Medical Officer, Gold Coast Expedition.

ARMY MEDICAL DEPARTMENT.—Surgeon-General W. Munro, M.D., C.B., Surgeon-General D. R. MacKinnon, and Deputy Surgeon-General T. C. O'Leary, M.B., have been granted retired pay, the latter with the honorary rank of Surgeon-General; Brigade Surgeon J. L. Erskine, M.D., has been granted retired pay, with the honorary rank of Deputy Surgeon-General; Brigade Surgeon J. W. Hulseberg has been granted retired pay; Surgeon-Major J. H. Robotham to be Brigade Surgeon, vice E. L. Lundy, deceased, instead of vice E. L. Hiffernan, deceased, as previously stated; Surgeon-Major W. L. Farmer to be Brigade Surgeon, vice E. L. Hiffernan, deceased, instead of vice E. L. Lundy, deceased, as previously stated; Surgeon-Major R. J. W. Orton has been granted retired pay, with the honorary rank of Brigade Surgeon.

ADMIRALTY.—The following appointments have been made:—Deputy Inspector-General T. J. Haran to Haslar Hospital, vice Deputy Inspector-General Alexander Watson, who has been placed on the Retired List from the 20th instant, with permission to assume the rank of Retired Inspector-General of Hospitals and Fleets from the same date; Staff Surgeon Peter Burgess, M.B., to the *Dragon;* Surgeon W. P. M. Boyle to the *Arab*, vice Beaumont.

ROYAL COLLEGE OF PHYSICIANS.

AT the Quarterly Comitia of this College, held on the 28th inst., under the presidency of Sir W. Jenner, Bart., a letter was read from the Secretary to the Medical Acts Commission, asking for the opinion of the College upon the question whether any alterations are necessary in the present licensing system, and if so, what changes would be most beneficial to the profession and the public; also whether, in the opinion of the College, the present constitution, powers, and functions of the General Medical Council appeared satisfactory; and if the Council required modification, in what direction it should be modified so as to increase the confidence of the profession and the public in it.

After some discussion, a reply, suggested by Dr. Pitman, the Registrar, was approved. It stated that, in the opinion of the College, an alteration is required in the present licensing system, and that the change which would be beneficial would consist in the appointment of a Board of Examiners in this division of the United Kingdom, by the co-operation of all the medical authorities at present existing, liberty being left to each to confer its honorary distinctions and degrees upon those who qualify specially for them. Upon the subject of the General Medical Council, the College did not desire to give an opinion. It was pointed out by Dr. Pitman and others that in urging the conjoint scheme upon the Commission the College was only reaffirming what it had often previously declared, and that it would be almost impossible to get

unanimity of opinion upon the question relating to the General Medical Council. It was also stated that there was no doubt that a one-portal system would be recommended by the Commission, and that the important point was, whether the licensing board, for this purpose, should be a body appointed by the State independently of the corporations, or whether it should be formed by the union of the corporations, according to the conjoint scheme.

The various College officers nominated by the President and Council were elected, the Censors for the ensuing year being Drs. E. H. Sieveking, E. H. Greenhow, Andrew Clark, and Lionel Smith Beale.

THE INTERNATIONAL MEDICAL CONGRESS.

THE hope that we expressed last week, that His Royal Highness the Prince of Wales will not only be present at the opening general meeting of the Congress, but will take an active part in it, and declare the Congress open, will, according to the latest arrangements, be realised. The only other alteration in the programme is in reference to Professor Volkmann's address. Instead of dealing with "Modern Surgery," as was his original intention, he will discuss the "Treatment of Wounds" only; and it has therefore been decided that his paper will be more appropriately read in the Surgical Section, as the introduction to the discussion of that great, old, but ever new, subject. Professor Huxley will, therefore, deliver his address at the General Meeting on Monday, August 8th, and no address will be given at the concluding general meeting on Tuesday, August 9th. It is impossible to state with entire accuracy the numbers about to assemble; it is believed, however, that the foreign visitors will form a contingent of at least 1000, and that the British members will be double that number. Possibly even this large total will be exceeded. At the time we write 1000 members have already enrolled their names. We are glad to be able to announce that the City authorities have placed 2500 tickets for the conversazione at the Guildhall at the disposal of the Reception Committee. The death of Dean Stanley has caused a change in the programme of the Congress, for he was to have preached a special sermon on the morning of Sunday, August 7th. His place on that occasion has not yet been filled up.

One of the special items in the programme is a visit to the chief metropolitan hospitals on Thursday and Friday of next week. It is anticipated that large numbers will avail themselves of the opportunity thus afforded them of seeing the practice and arrangements of these institutions. We trust the committees and staffs of the hospitals will make all possible preparations in order that these visits may be as useful as possible. We are requested to announce that there will be a Clinical morning in the Dermatological Section of the Congress on Saturday, August 6th, commencing at 10 A.M. Gentlemen desiring to demonstrate rare cases of skin diseases are invited to communicate, personally, with Dr. Thin, 22, Queen Anne-street, W., as soon as possible. The volume of Abstracts consists of over 700 pages; it will be supplied to members, on application at the College of Physicians, next week. The programme of general arrangements has been printed in English, French, and German, and a separate sheet giving the conditions on which the various places of interest mentioned in the programme may be visited has been prepared.

The tickets are now being distributed to those who have paid their entrance-fee; they are extremely well got up both from the artistic and practical point of view. The ticket is in three divisions; on the outside in the centre is the Congress medallion and the member's name and number, with a list of meeting places on the right, and the daily programme on the left; on the inside is a very distinct map, in which all the places of interest to members are plainly marked and numbered, a small plan of the rooms in the University of London and Burlington House, and a small map of the neighbourhood of the meeting rooms. The ticket, in fact, gives just the information required. It is important to draw attention to the fact that as none but members will on any pretence be admitted to the meetings of the Congress, tickets must be shown on entering every meeting. A large number of foreigners is already among us, including Dr. Flint (Grand Hotel), Dr. Snellen (Charing-cross Hotel), Dr. Billings, Dr. Bigelow (Bristol Hotel), Dr. Santesson and Dr. Grosz de Coatar (Burlington Hotel), while Profs. Virchow, Langenbeck, Charcot, Esmarch, Ollier, Verneuil, and Hardy are expected in a day or two.

MEDICAL NOTES IN PARLIAMENT.

IN the House of Commons on Thursday, the 21st July, the Annual Report of the Registrar-General for Scotland and the Sixteenth Annual Report on Vaccination in Scotland were presented.—Mr. Hastings gave notice that he will move for leave to introduce a Bill for the better notification of infectious diseases.—Notices of opposition to the Veterinary Surgeons Bill (Lords), which stands for Committee, were put down by Sir E. Watkin, Mr. Warton, and Mr. J. Cowen; and Mr. Whitley gave notice that he will move to omit clause 15.

On Friday, a paper presented on July 19th relating to an application from Liverpool for a university charter was ordered to be printed.—The Thirty-sixth Annual Report of the Scotch Board of Supervision and Public Health was presented.—Dr. Cameron gave notice that on going into Committee of Supply he will call attention to the powers possessed by the Local Government Board for the prevention and control of formidable epidemic diseases, and the manner in which those powers have of late been exercised.

On Monday, twenty-four petitions from various English towns were presented in favour of the Veterinary Surgeons Bill, and a similar petition from the Royal Society for the Prevention of Cruelty to Animals. A report on sanitary measures in India in 1879–80 was also laid on the table.

The Contagious Diseases Acts.

Mr. W. Fowler gave notice that on Thursday he would move for returns of the number of women summoned before magistrates in the various districts where the Contagious Diseases Acts are in force, distinguishing the numbers summoned in order to their subjection to the Acts, and the numbers summoned for offences against the Acts, including cases of offences committed by women in hospital, and of the number of orders of committal to prison.

Woolsorters' Disease.

Mr. Mundella, replying to Mr. W. Egerton, said the report of Mr. John Spears to the Local Government Board on the woolsorters' disease was only brought under his notice a few days ago, and had now been referred to the Veterinary Department of the Privy Council for their consideration and report. As to the danger of anthrax being communicated to British cattle or sheep by the use of foreign hair or wool as manure, it was only right to state, in order to avoid any alarm, that anthrax was comparatively a rare disease amongst animals in England, although slightly more known in Ireland. It did not appear to have increased at all during the last forty years. He should be happy to afford further information when it lay in his power.

London Water-supply.

Mr. Dodson informed Mr. Rogers that Colonel Bolton, water examiner to the Local Government Board, inspected the works of the Southwark and Vauxhall Water Company on the 22nd July, and reported that there need be no apprehension that the district was within an hour's risk of a water famine. The daily supply was equal to 35½ gallons per head of the population.

Small-pox in the Hop Districts.

On Tuesday, Mr. J. Talbot asked the President of the Local Government Board whether his attention had been called to the danger likely to arise in Kent and other neighbouring counties at the approaching hop-picking season from

the immigration of persons from London suffering from small-pox; and whether he can take any steps, by placards or otherwise, to warn those whom it might concern of the illegality of conveying persons in an infectious condition.—Mr. Dodson replied that the attention of the Local Government Board was directed to this subject some days ago; and before the notice of this question was given by the hon. member instructions had been issued by circular to the guardians and central authorities in the hop-growing districts, cautioning them of the danger likely to arise from the immigration in the hop-picking season of persons suffering from the contagion of small-pox, and pointing out the necessity of protecting the inhabitants, and isolating any person attacked with that disease. The Board themselves had not undertaken to issue placards, but in the circular referred to, which had already gone to press, and would be issued in a few days, the guardians were recommended to notify by handbills and otherwise the penalties incurred by the exposure of infected persons.

On Wednesday, a petition was presented from Whitechapel, in favour of a new fish-market in London. The Vivisection Abolition Bill was withdrawn. The Alkali Works Regulations Bill was read the third time and passed. A Bill for the better notification of infectious diseases was brought in by Mr. Hastings, Sir Trevor Lawrence, Dr. Farquharson, and Mr. Brinton, and having been read a first time, was put down for second reading on Wednesday next.

Anti-Vaccination.

Mr. P. A Taylor gave notice that early next session he will call attention to the undoubted failure of vaccination to prevent epidemics of small-pox, and to move, "That, in the opinion of this House, it is unjust and impolitic to enforce vaccination under penalties upon those who regard it as unadvisable or dangerous."

The Army Hospital Corps.

On Thursday, Mr. O'Donnell asked the Secretary of State for War whether he is aware that the Director-General of the Army Medical Department represented to the authorities that the title of Hospital Quartermaster is most distasteful to the officers of the Army Hospital Corps, and recommended its abolition or withdrawal; and that very many officers of the Army Hospital Corps not only prefer their present titles as Captains and Lieutenants of Orderlies of the Army Hospital Corps, but have petitioned the authorities to this effect.—Mr. Childers said the Director-General of the Army Medical Department was himself one of the "authorities of the War Office," with whom he was in constant confidential communication, and he must decline to state what advice he received from that official. At the same time, he was not to assume that the statement in his question was correct. Two officers, who belonged to the old class of apothecaries, and one lieutenant of orderlies, had applied to retain their former titles and conditions of service. He had not yet decided what course to pursue in regard to these applications. Other applications to retain the old title, but not the old emoluments, had been received, but he did not propose to entertain them. The gazetting of hospital quartermasters would not be delayed.

THE BRITISH MEDICAL ASSOCIATION.

THE annual meeting of the Association will be held this year at Ryde, I. W., and will commence on August 9th, and terminate on the 12th of August. Professor Humphry will resign the chair in favour of the President-elect, Mr. Barrow, Consulting Surgeon to the Royal Isle of Wight Infirmary. The Address in Medicine will be delivered by Dr. J. S. Bristowe; that in Surgery by Mr. Jonathan Hutchinson, and that in Obstetrics by Dr. J. G. Sinclair, Physician to the National Hospital for Consumption, Ventnor. There will be no address in Physiology. The presidents of the sections are as follows: Medicine, Dr. E. Long Fox; Surgery, Mr. W. Martin Coates; Obstetrics, Sir E. B. Sinclair, M.D.; Public Medicine, Dr. Arthur Ransome. A goodly array of papers to be read in the various sections appears on the programme, and discussions on subjects of interest are announced. The annual museum will be open daily during the meeting at the School of Art, which has been fitted up as a reception-room. At the dinner effect will be given to the resolution passed at Cambridge last year with respect to the tickets, which will be issued of two prices—viz., 14*s.* exclusive, and £1 1*s.* inclusive of wine. An excursion is arranged by steamer to Alum Bay and Freshwater, and thence *viâ* Yarmouth to Cowes and Carisbrook. Another party will visit Sandown by train, proceeding thence to Shanklin and Ventnor, where a *déjeuner à la fourchette* will be given by the residents in the grounds of Dudley Hambrough, Esq., J.P., at Sheephill Castle. Arrangements will also be made from day to day for visiting the dockyards at Portsmouth.

Correspondence.

"Audi alteram partem."

THE PROVIDENT MEDICAL ASSOCIATION AND COMPANY.

To the Editor of THE LANCET.

SIR,—In your number for July 23rd there is an article on the Provident Medical Association, which met the other day at the Duke of Westminster's, and in which I am proud to own myself deeply interested. In that article you ask (and ask very properly) for information as to important medical details, and as the article is written in a very kindly spirit, and with an evidently sincere appreciation of the general object of our association, I have the greater pleasure in complying with your request. In the first place, you say that my name is the only medical name you recognise in the report. I am glad, however, to say that it is by no means the only one connected with the association. The day selected for the meeting was unluckily that on which the opening ceremony of the International Sanitary Exhibition was held, so that few medical men were present except myself, but several of our medical brethren have already joined, and more will no doubt do so if the scheme commends itself to public confidence. In the second place, it is a misapprehension to suppose that our association proposes to supply its members with medical attendance in all emergencies except "the capital operations of surgery." We recognise that there are many other cases, both medical and surgical, besides those calling for surgical operations, which are most legitimate subjects for hospital treatment, and still more for hospital consultation. But we say that the ordinary ailments of the poor neither need be treated at hospitals, nor can be so treated efficiently; that domiciliary visitation, knowledge of the habits of the patient, and advice as to his food, clothing, &c., are absolutely necessary—in fact, the sort of treatment that the family doctor gives to the rich man; and that a bottle of medicine once a week, and a hurried word or two, are a mockery both of charity and of medical treatment in a very large proportion of the out-patient cases. If there is any hospital officer conversant with such practice who denies this I have not yet met with him. Another matter on which you comment is, that each dispensary is to pay something to the Central Association. This payment, however, will only be on account of preliminary expenses, with, I presume, a certain interest until paid. We hope to make the dispensaries self-supporting, but no one expects or wishes that they should be turned into sources of commercial profit to the managers. Next you say that you are not told how many shares have been taken in the new company. I hope I am not violating any confidence in telling you that a little over 5000 are as yet taken up out of 50,000, which, considering the short time that we have been before the public, and the fact that our operations are only just beginning, is, I think, a very encouraging proof of public confidence. That our company will pay a dividend of 5 per cent. is not a certainty, but I see no improbability in it. At the same time, the persons who have hitherto taken shares have done so more from interest in the scheme than in hope of profit. But what you seem most doubtful about, and what is certainly the most important feature in the new scheme, is as to the adequacy of the remuneration offered to the medical officers. I quite agree with you that a medical institution such as you describe, "in which whole families are to be attended for 1*s.* 6*d.* a quarter and two doctors

are employed to do the work of twelve," would be a disgraceful imposition. If, as you say, language has been employed at some of the meetings of our association and company implying that any such arrangements are to be imported into London, it must have been in my absence, nor would I ever consent to be connected with any such proceedings. In this attempt to substitute for the present indiscriminate gratuitous relief a system of payment by the poor for their medical attendance, on the principle of insurance, it is obvious that the rates of payment must be low, but I am glad to say that we have anticipated your advice to take the well-established sick clubs as our guide. We can only enlist the necessary number of members by the co-operation of the large friendly societies, and we propose to admit their members on the terms which they now pay for their sick clubs, and other members on terms slightly higher. The reason for the difference is that the members of friendly societies are male adults, and most of them have very little illness. Other members would consist largely of women and children, and require more attendance. That these terms can adequately remunerate the medical men we conclude, not merely from the experience of the provident dispensaries in London, the majority of which, as you truly say, is not at present self-supporting, but from the large institutions in the manufacturing districts, which are now firmly established and are perfectly independent, and whose offices are sought for by the most respectable practitioners of the district. There is no conceivable reason why what pays so well in those counties should not be equally successful in London, except the prevalence here of a vast system of indiscriminate out-patient relief. If we could obtain the assistance of the medical press and the medical public in reforming the abuses of this system, I have no doubt that something would take its place, in respect to the relief of the mass of ordinary sickness, which would be far more just to the profession and far more satisfactory to the poor. But we have no wish whatever to abolish or even cripple the out-patient practice of the hospitals. On the contrary, we fully recognise their value in medical education, and only want to improve them. Still less have we any wish to do injustice to medical men. The present gratuitous system, we believe, deprives them in London alone of a very large sum of money annually, which we wish to restore to them; and with patience, &c., wish on all sides to treat the question fairly. We do not despair of success. It would be a good augury of success, and a long step towards it, if we could enlist the powerful support of THE LANCET for a plan, the general objects of which you are pleased to stamp with your approval.

I am yours, &c.,

Great Cumberland-place, July 26th, 1881. T. HOLMES.

P.S.—As an example of the income which may be derived from a really self-supporting provident dispensary, allow me to instance that at Leicester their balance-sheet for 1880 (which I enclose and shall be glad to send to anyone interested in the matter) shows that they received £4263, of which £2601 was paid to the medical officers—viz., £2206 for ordinary attendance, and £395 for midwifery fees. Their rates of payment are, I think, somewhat lower than ours. Why should that be impossible in London which is easy at Leicester; or how is the dignity of medical labour violated in the persons of the medical men (twelve in number) who work the dispensary?

CENTRAL AMBLYOPIA IN DIABETES.

To the Editor of THE LANCET.

SIR,—In further support of the observations made on this subject by Mr. Nettleship at the last meeting of the Ophthalmological Society, at which I was unable to be present, I wish to say that, some three months ago, Dr. Saundby sent me a case of diabetes, with amaurosis, for my opinion as to the condition of the eyes, of which I made the following note:—"Central amblyopia for all colours; sees better in a dull light; emmetropic vision = $\frac{15}{\text{No. type}}$ Snellen."

The patient was a man aged about fifty. There was no ophthalmoscopic signs of disease. Though I made no note as to whether he was a smoker or not, I feel almost sure, speaking from memory, that I made inquiries which resulted in his stating that he was not a smoker, because I was much interested and struck by this condition, which I had previously considered peculiar to tobacco, amblyopia being present in diabetes. Unfortunately the man has since died, and I am unable to make any further inquiries on this point.

I am, Sir, yours truly,

Birmingham, July 19th, 1881. HENRY EALES.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the required examination for the diploma, were duly admitted Members of the College at a meeting of the Court of Examiners on the 21st inst.:—

Atkinson, Thomas Ruell, Fleet-street.
Collins, John Sheill, M.D. Queen's Univ. Irel., Belfast.
Harris, Thomas, Fallowfield, Cheshire.
Haycock, Henry Edward, Shrewsbury.
Humphreys, William Carr, L.S.A., Bromsgrove.
Jones, John Hugh, L.K.Q.C.P.I., Talsarn, Carnarvon.
Joseph, J. B. Edgar, Trinidad, West Indies.
Lane, James Oswald, B.A. Cantab., Hereford.
Ray, William Barker, Newtown, Montgomery.
Robertson, C. A. James, Manchester.
Robinson, Charles William, L.S.A., North Shields.
Schacht, Franc Frederic, B.A. Cantab., Clifton, Bristol.
Tait, Henry Brewer, Highbury-park.
Teevan, Henry, L.S.A., Nottingham-place.
Whelan, George, Tichurst-street.
Wilson, Henry, Sale, Cheshire.

The following gentlemen were admitted Members of the College on the 22nd inst.:—

Bagshaw, Thomas Washington, Birkenhead.
Boobbyer, Philip, Hendon.
Bray, Ernest Edward, L.S.A., Bognor, Sussex.
Gale, Arthur Knight, Chilworth, Oxon.
Gaskin, Thomas Law, Barbadoes.
Gross, Asher, Leeds.
Hardwicke, Richard Reece, Tonbridge.
Herringham, Wilmot Parker, Bedford-square.
King, W. H. Tindal, L.S.A., Plymouth.
Pittard, Marmaduke, Guernsey.
Pounds, Thomas Henderson, Chatham.
Rimell, Alfred Tom, Eardley-crescent.
Roberts, Richard Pritchard, L.S.A., Bangor.
Vincent, Philip, Hadham Cross, Herts.
Wickham, Walter, L.S.A., Chew Stoke, Somerset.
Woolley, George Talbot, Upper Bedford-place.
Pratt, James John, Newtown, Montgomery.

The following gentlemen were admitted Members of the College on the 25th inst.:—

Alderton, Herbert Charles, Shotley, Suffolk.
Brown, C. W. Haig, Godalming.
Coates, William, Worksop.
Davies, Evan Naunton, L.S.A., Cymmer, South Wales.
Draper, James William, Barnsbury.
Grindon, Francis James, L.S.A., Olney, Bucks.
Hern, John, M.B. Edin., Ashburton, Devon.
O'Reilly, Archibald Thomas, Sydney, New South Wales.
Robinson, Hugh Shapter, Sydenham-hill.
Walker, Charles Rotherham, Eckington, Derbyshire.
Webber, Edward Samuel, B.A. Cantab., Abergavenny

The following gentlemen were admitted Members of the College on the 26th inst.:—

Bickle, Leonard Watkins, St. Leonards-on-Sea.
Cook, Augustus Henry, Hampstead.
Dowson, John, St. John's Wood.
Edwards, Arthur Rea, Malmesbury.
Fitch, Richard Aubrey, Kidderminster.
Lyster, C. R. Chaworth, Leamoss Heath.
Perks, Robert Howell, Cardiff.
Prothero, Richard, Liverpool.
Rice, Bernard, Stratford-on-Avon.
Rudd, Charles Frederick, L.S.A., Wymondham
Russell, John Hutchinson, L.S.A., Waltham-cross
Rygate, David John, L.S.A., Cannon-street-road
Serjeant, George, Callington, Cornwall.
Steer, William, L.S.A., Salcombe.
Tuke, Charles Molesworth, Chiswick.

The following gentlemen were admitted Members of the College on the 27th inst.:—

Atterbury, Walter, L.S.A., Oppidans-road.
Burrows, C. W. Grimes, L.S.A., Eckington, Derbyshire
Cahill, John, Albert-gate.
Clifton, Frederick William, Derby.
Cornish, Charles Newton, Taunton.
Duff, Charles Henry, Gray's-inn-road.
Fell, Walter, Vincent-square.
Groom, William, B.A. Cantab., Wisbeach.
Hill, William John, Croydon.
Robins, George Norman, Buxton.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on July 21st:—

Hoff, George Framingham, Bandwar, Bengal.
Coffin, Arthur Blount, Eastbourne-terrace, Hyde-park.
Boyd, James Dunlop, Beith, Ayrshire, N.B.
Manby, Herbert Lynsey, Brewood, Stafford.
Fletcher, Howard Burnett, Hanover-square, Sheffield.
Teevan, Henry, Nottingham-place.
Allworth, Frank, Wateringbay, Kent.
Morse, Thos. Ricketts, Eton House, Cheltenham.
Roberts, Richard Fletcher, Bangor, N. Wales.

The following gentlemen also on the 14th inst. passed the Primary Professional Examination:—

Joseph Bott and Edward Herbert Squire, London Hospital; Thos. Preston Gostling, University College; and William B. C. Treasure, Charing-cross Hospital.

And on the 21st:—

Chas. Edward Faunce, Alan Edmonson Tate, and John F. McMillan, Middlesex Hospital; George Herbert Fink, University College; Bernard Scott, Guy's Hospital; Ernest Alfred White, St. Bartholomew's Hospital.

MIDLAND MEDICAL SOCIETY. — The inaugural address for the session 1881–82 will be delivered by Dr. Clifford Allbutt.

IN consequence of the Medical Congress the Library of the Obstetrical Society will remain open until August 10th, when it will be closed until September 12th.

THE Brighton Hospital for Sick Children was on the 21st inst. opened for the reception of patients by the Prince and Princess of Wales, accompanied by the Princesses Louise Victoria and Maude.

IN acknowledgment of extra services during the last nine months, a sum of £25 has been voted as a gratuity to their medical officer by the Board of Guardians of St. George's-in-the-East. For a similar reason, Dr. Sequiera has received a gratuity of £33 from the Whitechapel Board.

AN attempt is being made to open the North-west London Free Dispensary for Sick Children, Bell-street, Edgware-road, as a Children's Hospital with twenty-five beds. Several changes in the medical and surgical staffs of the institution have lately taken place. These fresh appointments are announced in another column.

VACCINATION GRANTS. — Mr. C. H. Fisher of Sittingbourne has received the Government gratuity of £34 10*s.* for efficient vaccination for the Sittingbourne district of the Milton Union. Mr. Peter Swales of Sheerness has received a vaccination grant of £28 17*s.*, this being the fifth gratuity awarded to him. Mr. T. Evans of Harwich, medical officer of the first and second districts of the Tendring Union, has received a Government grant of £20 6*s.* for efficient vaccination.

BEQUESTS AND DONATIONS TO MEDICAL CHARITIES. The Royal Infirmary and the Western Infirmary, Glasgow, receive each £1000 under the will of the late Mr. McGavin. Mr. W. G. Mantle, late of Leicester-square, bequeathed £1000 to Charing-cross Hospital, £500 to the Hospital for Incurables, £200 each to the Westminster, Royal Free, the Cancer, St. Peter's, and Ipswich Hospitals, and the National Hospital for the Paralysed and Epileptic, and £100 to the Lowestoft Hospital. The secretary of the City Orthopædic Hospital has received from the trustees of the late Mrs. Batty £1073 1*s.* 4*d.* in aid of the funds of the institution.

SOCIAL SCIENCE CONGRESS.—The Congress will meet this year in Dublin, and will be under the presidency of the Right Hon. Lord O'Hagan, who will deliver the inaugural address on the opening day, the 3rd October next. The Health Department will include queries to the following effect:—Is it desirable that hospitals should be placed under State supervision? Is it desirable that there should be a system of compulsory notification of infectious diseases, and, if so, what is the best method of carrying such a system into effect, and what is the best mode of enforcing the isolation of cases of infectious disease? Is any further legislation desirable, in order to more effectually prevent the overcrowding of dwelling-houses?

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

REPORT from the Board and the Court of Examiners of the number of candidates who have presented themselves for the primary and pass examinations for the diploma of Member of the College during the collegiate year 1880–81, showing the number who have passed and have been rejected from each Medical School during that period.

PRIMARY EXAMINATIONS.

Medical Schools.	Totals.	Number passed.	Number rejected.
St. Bartholomew's	135	80·50	54·50
University College	101·6	52·83	48·83
Guy's	97	67	30
King's College	68	43·50	24·50
St. Thomas's	58·50	40	18·50
London	46	37	9
Middlesex	35·50	21	14·50
Charing-cross	34	24	10
St. George's	27	18	9
St. Mary's	23·3	10·83	12·50
Westminster	17·50	13	4·50
Manchester	54	25·50	28·50
Leeds	29·83	14·50	15·3
Cambridge	22·83	17·50	5·3
Liverpool	22·50	16·50	6
Newcastle-on-Tyne	21·50	10·50	11
Bristol	17	14	3
Birmingham	16	12	4
Sheffield	7	3	4
Dublin	9	5	4
Belfast	3·50	....	3·50
Edinburgh	52·83	34·83	18
Glasgow	11·50	4·50	7
Aberdeen	7	6	1
Toronto	4·50	2·58	2
M'Gill College, Montreal	3	2	1
Halifax	·50	·50	....
New York	2	1	1
Yale	·50	....	·50
Harvard	·3	·3	....
Bengal	2	1·50	·50
Calcutta	1	·50	·50
Bombay	1	1	....
Melbourne	2·50	2·50	....
Leipzig	1·50	1·50	....
Heidelberg	1	....	1
Berlin	·3	·3	....
Paris	1·50	1·50	....
Seville	1	....	1
Vienna	·3	·3	....
Basle	1	1	....
Totals	942	588	354

May 14th, 1881. ARTHUR E. DURHAM, Chairman of the Board.

PASS EXAMINATIONS.

Medical Schools.	Totals.	Number passed.	Number rejected
St. Bartholomew's	100·16	75·83	30·3
Guy's	85	47·50	37·50
University College	73·16	51	21·16
St. George's	41·50	26·50	15
London	30·6	20	10·6
St. Thomas's	38·50	26	12·50
King's College	30	13·50	16·50
St. Mary's	27·50	19·50	8
Middlesex	27·50	16·50	11
Charing-cross	18·6	12	6·6
Westminster	17·50	9·50	8
Manchester	24·6	13·50	11·16
Birmingham	19	11	8
Leeds	15	6	9
Cambridge	11	8	3
Liverpool	9·6	7·83	1·83
Newcastle-on-Tyne	8·3	4	4·3
Bristol	5·50	3·50	2
Sheffield	3·3	1·83	1·50
Dublin	5	2	3
Galway	1·50	1·50	....
Cork	·50	·50	....
Edinburgh	17	12·50	4·50
Glasgow	4·3	1·3	3
Aberdeen	1	1	....
Madras	1	·50	·50
Toronto	2·50	2·50	....
M'Gill College, Montreal	2	1	1
New York	1·50	1·50	....
Ohio	·50	·50	....
Harvard	·3	·3	....
Colombia	·3	·3	....
Melbourne	3	1·50	1·50
Adelaide	·50	·50	....
Hobart Town	·3	....	·3
Leipzig	1	1	....
Berlin	·83	·83	....
Vienna	·3	·3	....
Basle	1	1	....
Paris	1·83	·83	1
Malta	1	....	1
Totals	649	406	243

Note.—In the above lists candidates who are indicated by a fraction have received their education at more than one School of Medicine.

May 19th, 1881. JOHN BIRKETT, Chairman of the Court.

BOOKS ETC. RECEIVED.

CASSELL, PETTER, GALPIN, & Co., London.

A Police Code and Manual of the Criminal Law. By C. E. Howard Vincent, Director of Criminal Investigations.

GRIFFITH & FARRAN, London.

The Classics for the Million; being an Epitome in English of the Works of the Principal Greek and Latin Authors. By Henry Grey. Second Edition. pp. 348.

LEWIS, H. K., London.

The Harrogate Waters: Data, Chemical and Therapeutical, with Notes on the Climate of Harrogate. By George Oliver, M.D. Lond. pp. 224.

Lectures on the Parasitic Diseases of the Skin, Vegetoid and Animal. By James Startin. pp. 88. With Illustrations.

MACMILLAN & Co., London.

A Treatise on Comparative Embryology. By F. M. Balfour, LL.D., F.R.S. In 2 vols. Vol. II. pp. 654—xxii. Profusely Illustrated.

Fashion in Deformity, as illustrated in the Customs of Barbarous and Civilised Races. By W. H. Flower, F.R.C.S., F.R.S. pp. 35. Illustrated.

NEW SYDENHAM SOCIETY, London.

Selections from the Works of Abraham Colles. Edited, with Annotations, by Robert M'Donnell, M.D., F.R.S. pp. 431.

Lectures on Diseases of the Nervous System. By Dr. J. M. Charcot. Second Series, Translated and Edited by G. Sigerson, M.D., Ch.M. pp. 399. With Plates and Woodcuts.

PUTNAM'S SONS, New York.

American Nervousness, its Causes and Consequences. By Dr. G. M. Beard. pp. 352.

An Interesting Case of Malformation of the Female Sexual Organs; by E. Swasey, M.D.—A Case of Battey's Operation, or Double Oöphorectomy; by Dr. I. De Zouche.—Transactions of the American Dermatological Association.—The Strong Galvanic Current in the Treatment of Sciatica; by Dr. V. P. Gibney.—Perityphlitis in Children; by Dr. V. P. Gibney.—The Carisbrooke.—The Dental Record, July.—About some Girls; by E. T. M.—The Micrographic Dictionary, Part I. 2s. 6d.—The Squire, No. IX. (Franklin & Co.)—Brain, July.—The Royal London Ophthalmic Hospital Reports; edited by John Tweedy, F.R.C.S. Vol. X., Part 2.—The Fireside; The Welcome, July.—Justus von Liebig, his Merits in the Promotion of Practical Medicine, by Professor F. W. Beneke. (Maclehose, Glasgow.)—Etudes Statistiques sur la Méthode Antiseptique de Lister; par le Dr. G. Poinsot.—Popular Science Review, July.—Westminster Review, July.—Die Nervenschwäche, ihre Symptome, Natur, Folgezustände, und Behandlung; von G. M. Beard, A.M., M.D. (Vogel, Leipzig.)—Journal of Anatomy and Physiology, Vol. XV., Part 4. (Macmillan.)—Ether Death: a Personal Experience in Four Cases of Death from Anæsthetics; by J. B. Roberts, M.D.—Importance of a Knowledge of Diseases of the Ear; by Thomas Barr, M.D.—Physicians and Homœopathy; by Dr. S. H. Ramsbotham. (Simpkin & Co.)—A Clinical Contribution to the Study of Post-paralytic Chorea; by Dr. E. C. Seguin. (Putnam's Sons.)—Ophelia, eine Monographie für gebildete leser aller Stände; von Dr. Hirschfeld.—Quarterly Journal of Microscopical Science, July.—Hip Injuries—Hip-joint Disease; by Dr. De F. Willard.—The Liverpool Medico-Chirurgical Journal, July.—Index Medicus, Vol. III., No. 6.—Ueber den Einfluss des Ruckenmarks auf die Harnsecretion; von Barney Sachs. In Memory of Edward Seguin, M.D.—Good Words, August.—Sunday Magazine, August.—Are all Anæsthetics Dangerous which contain Chlorine, Bromine, or Iodine? by Dr. E. T. Reichert.—Der Sogenannte Animalische Magnetismus oder Hypnotismus; von Dr. Christian Bäumler. (Vogel, Leipzig.)—Archives de Neurolgie; publiée sous la direction de J. M. Charcot. No. 5.—Fraser's Magazine, August.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning, at the latest.*

BEALE, E. C., M.A., M.B., M.R.C.P., has been appointed Assistant-Physician to the City of London Hospital for Diseases of the Chest, Victoria-park, vice P. Kidd, resigned.

BISS, C. Y., M.B., M.R.C.P.L., M.R.C.S., has been appointed Assistant-Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

BLAMEY, J., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health to the Falmouth Union Rural Sanitary Authority.

BURROUGHS, J. E. B., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Lee District of the Lewisham Union.

FOX, F., L.R.C.P.Ed., M.R.C.S., has been appointed an additional Dental Surgeon to the Victoria Hospital for Sick Children, Chelsea.

FOX, T. C., M.B.Lond., M.R.C.S., has been appointed Physician to the Skin Department of the North-West London Free Dispensary for Sick Children.

GAIRDNER, J. M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Welford and Alveston Districts and the Workhouse of the Stratford-on-Avon Union, vice Johnston, resigned.

GOULD, A. P., F.R.C.S.Eng., M.B.Lond., has been appointed Surgeon to the North-West London Free Dispensary for Sick Children.

GUNN, R. M., M.B., C.M.Edin., M.R.C.S., has been appointed Surgeon to the Eye Department of the North-West London Free Dispensary for Sick Children.

HALL, E. F., M.D. St. And., L.R.C.P.Ed., M.R.C.S., has been re-appointed Medical Officer of Health for the Prescot Rural Sanitary District.

HARTLEY, C., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the High Easter District of the Dunmow Union.

JONES, J. T., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer to the Llansilin District of the Oswestry Union.

KIRBY, T. C., L.K.Q.C.P.I., M.R.C.S., has been appointed Consulting Physician to the North-West London Free Dispensary for Sick Children.

KNIGHTS, Mr. J. W., has been reappointed Public Analyst for the County of Huntingdon for one year.

LAYCOCK, G. L., M.B., C.M.Edin., has been appointed Physician to the North-West London Free Dispensary for Sick Children, vice Waller, resigned.

MOORE, E. W. C., L.D.S.R.C.S., F.S.S.Lond., has been appointed Dental Surgeon to the Bloomsbury Branch of the Metropolitan Medical Provident Association.

OGILVIE, I., M.B., C.M.Edin., has been appointed Physician to the North-West London Free Dispensary for Sick Children, vice Bland, resigned.

PRESTON, W., M.B., M.Ch.Edin., has been appointed Medical Officer to the First District of the York Union.

RINGER, S., M.D., F.R.C.P.Lond., has been appointed Physician to the North-West London Free Dispensary for Sick Children.

Births, Marriages, and Deaths.

BIRTHS.

ARCHIBALD.—On the 20th inst., at Lynton House, Brixton-rise, the wife of John Archibald, M.B., C.M., F.R.C.S.Eng., of a son.

HOLDEN.—On the 19th inst., at Sudbury, Suffolk, the wife of J. Sinclair Holden, M.D., of a son.

MORSON.—On the 28th May, at West Maitland, New South Wales, the wife of Alexander Kinnear Morson, M.D., of a son.

RAHILLY.—On the 20th inst., at the residence of her father, The Court, Hutton, Somersetshire, the wife of Surgeon-Major J. Roche Rahilly, A.M.D., 21st Royal Scots Fusiliers, of a daughter.

SANDERS.—On the 18th inst., at Sharow, near Ripon, the wife of Surgeon-Major R. C. Sanders, Indian Medical Department, of a daughter.

SMITH.—On the 21st inst., at Imperial-square, Cheltenham, the wife of Wm. Robert Smith, M.D., F.R.S.Ed., of a daughter.

WILLIAMS.—On the 14th inst., at Sherborne, Dorset, the wife of W. H. Williams, jun., M.R.C.S.E., L.R.C.P.Lond., of a son.

MARRIAGES.

BRUMWELL—BROADBENT.—On the 18th inst., at St. Mary's, Lambeth, George W. Brumwell, L.R.C.P.Ed., M.R.C.S., of Strickland House, Kendal, to Ada, youngest daughter of John Broadbent, of Manningham, Bradford.

WATERHOUSE—STERN.—On the 16th inst., at the British Embassy Chapel, Vienna, Charles H. Waterhouse, M.D., B.A., to Cecile, eldest daughter of Ferdinand Stern of Vienna.

WILSON—TORRANCE.—On the 28th inst., at Georgeville, Edinburgh, by Rev. Hiram Watson, assisted by Rev. Frank Gordon, Ratho, Alexander Wilson, M.B., C.M., of Midcalder, to Mima Ogilvie, youngest daughter of William Torrance, Esq., of Burn House, Midlothian.

WOOD—HOLBERTON.—On the 20th inst., at the Church of St. Peter and St. Paul, Teddington, E. J. Wood, M.B.Cantab., of Yalding, Kent, to Ethel Vaughan, eldest daughter of Vaughan Holberton, Esq., of Hampton, Middlesex.

DEATHS.

PROCTOR.—On the 21st inst., suddenly, at Belhelvie, R. F. S. Proctor, M.B., C.M.Aber., aged 34.

TAYLOR.—On the 24th inst., at the residence of his father, Arthur Taylor, M.B., M.R.C.S., late of Wanganui, New Zealand, eldest son of David Taylor, M.R.C.S., Kennington-park-road, S.E., aged 37.

WALSH.—On the 9th inst., at Brewood, Stafford, Samuel Walsh, M.B., L.R.C.S.I.

WILSON.—On the 25th inst., suddenly, at Stockton-on-Tees, John Wilson, L.F.P.S.Glas., L.R.C.P.Ed.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, July 28th, 1881.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
July 22	30·00	S.W.	61	55	76	64	54	..	Raining
,, 23	30·00	W.	64	60	98	71	54	·02	Cloudy
,, 24	29·96	W.	69	64	96	73	58	..	Cloudy
,, 25	29·71	N.W.	61	54	104	69	51	·04	Cloudy
,, 26	29·58	N.	58	54	106	72	53	..	Cloudy
,, 27	30·01	N.E.	57	53	98	67	53	..	Cloudy
,, 28	30·25	W.	59	53	106	74	46	..	Bright

THE INTERNATIONAL MEDICAL CONGRESS

THE following is the daily programme, complete up to our going to press :—

Tuesday, Aug. 2nd.

10 A.M. to 6 P.M. : Registration of Members.
3 to 6 P.M. : Informal Reception at the College of Physicians.
9.30 P.M. : Conversazione given by President of Odontological Society to the Members of the Odontological Section.

Wednesday, Aug. 3rd.

11 A.M. : General Meeting at St. James's Hall; Chairman Sir William Jenner. The Prince of Wales will declare the Congress open. Inaugural Address by Sir James Paget.
3 P.M. : Meeting of the Sections.
4 to 7 P.M. : Musical Promenade in Royal Botanic Society's Gardens.
4.30 P.M. : General Meeting. Address by Professor Virchow.
9.30 P.M. : Conversazione at South Kensington Museum.

Thursday, Aug. 4th.

10 A.M. to 1 P.M. : Meetings of Sections.
1.30 P.M. : Visits to Hospitals.
Demonstration of Natural History Collection at South Kensington by Professor Owen.
2 P.M. : Meetings of Sections.
4 P.M. : General Meeting. Reading of the late Professor Raynaud's Address by his friend Dr. Füréol.
6.30 P.M. : Banquet given by the Lord Mayor at the Mansion House.

Friday, Aug. 5th.

10 A.M. to 1 P.M. : Meetings of Sections.
12.45 P.M. : Visit to Mr. Penn's Works at Greenwich.
1.30 P.M. : Visits to Hospitals.
Demonstration of Natural History Collection at South Kensington by Professor Owen.
2 P.M. : Meetings of Sections.
4 P.M. : General Meeting. Address by Dr. Billings.
8 P.M. : Conversazione at the Guildhall.
Soirée at the Royal College of Surgeons, free to members of the Congress.

Saturday, Aug. 6th.

10 A.M. to 1 P.M. : Meetings of Sections.
12.15 P.M. : Excursion to Croydon Sewage Farm.
1.45 P.M. : Excursion to Folkestone—Unveiling of Harvey Memorial Statue.
2 P.M. : Excursion to Hampton Court, and Garden Party at Normansfield, given by Dr. Langdon Down.
4 to 7 P.M. : Reception at Kew Gardens by Sir J. D. Hooker. Garden Party at Hampstead, given by Mr. and Mrs. Spencer Wells. Garden Party at Wimbledon, given by Mr. and Mrs. Saunders.
6.30 P.M. : Dinner at Richmond, given by the United Hospitals Club. Reception by the Foreign Secretary to the Foreign Members of the Congress.

Sunday, Aug. 7th.

10 A.M. : Full Choral Service and Sermon in Westminster Abbey.
3.15 P.M. : Full Choral Service, and Sermon by Canon Liddon, in St. Paul's Cathedral.
1.30 P.M. : Excursion to Boxhill.
The Gardens of the Royal Botanic Society, Zoological Society, and at Kew and Hampton Court, will be open to Members of the Congress.

Monday, Aug. 8th.

10 A.M. to 1 P.M. : Meetings of the Sections.
11 A.M. : Visit to the Docks.
2 P.M. : Meetings of Sections.
4 P.M. : General Meeting. Address by Professor Huxley.
6.30 P.M. : Dinner given by the Master and Wardens of the Society of Apothecaries.
9.30 P.M. : Conversazione given by the Royal College of Surgeons.

Tuesday, Aug. 9th.

10 A.M. to 1 P.M. : Meetings of Sections.
2 P.M. : General Meeting.
4 P.M. : Visit to the Crystal Palace; Informal Dinner, and Display of Fountains and Fireworks &c.

During the week of the Congress Messrs. Spiers and Pond will set apart for members their Victoria banqueting room for a lunch at 2s. 6d. per head from 1 to 3 P.M., and for dinners and other refreshment at all hours. The Café Monico will provide a luncheon for 1s. 6d.

The General Meetings will all be held in St. James's Hall; the Sections meet in the University of London, Burlington House, the Royal Institution, the Asiatic Society's Rooms, and the Royal School of Mines; the various Offices of the Congress are in the Rooms of the Royal College of Physicians, Pall Mall East. Members will be required to show their tickets at each meeting.

Notes, Short Comments, and Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

Local papers containing reports or news-paragraphs should be marked.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

Lectures, original articles, and reports should be written on one side only of the paper.

We cannot prescribe, or recommend practitioners.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

"THE LANCET" INQUIRY CONCERNING SCHOOLS.

THE correspondent whose communication was quoted in the Report on p. 96 desires to make the following addition to his statements:—"Boys are almost made to play hand fives occasionally," by which is meant that he uses pretty strong influence to get every boy to play, especially the clumsy and weakly boys. "Our plan of having different forms in at different times during the morning gives opportunity for this being done at hours devoted wholly to play. Every boy is required, in fine weather, to be engaged in some out-door exercise for a total time of at least half an hour before dinner. Most boys on most days have the power of being out about an hour, but music lessons or other pursuits or extra tasks may interfere with this, provided always that half an hour is left. Besides this, every boy is engaged in the gymnasium for about half an hour daily or almost daily, the upper school in the morning and the lower in the evening. In the cricket season boys can frequently get off the sides (if they can be spared) for other pursuits—bird-nesting, bicycling, lawn tennis, &c.—almost everything which is not sedentary. As a matter of fact, few boys avail themselves often of this."

I. N. V. R.—We do not consider that it would be advantageous to the service to publish our correspondent's letter.

BRÜCKE'S HANDBOOK OF PHYSIOLOGY.

To the Editor of THE LANCET.

SIR,—In a review on Johannes Ranke's "Grundzüge der Physiologie," in THE LANCET of May 7th, I was surprised at the total omission of Brücke's name in a list given of the best known and valued German handbooks of physiology. Perhaps you will grant me space for a few remarks on the book in question.

Brücke's "Lehrbuch der Physiologie," which has been recently re-edited by the author, possesses three qualities which recommend it in an eminent degree to students and professional men who desire a concise representation of this most important branch of our science. 1. It contains all the principal facts of physiology which have become the common property of physiologists up to the present time. 2. It is thoroughly reliable in every direction. 3. Brücke has understood how to unite scientific accuracy and comprehensiveness with a most agreeable style. Parts of his book might be read in a leisure hour for recreation. This quality in a German text-book is at least worth mentioning, and the want of it is the chief objection to Hermann's text-book, which otherwise may be the best after Brücke's.

Brücke has throughout treated the subject with great ability and completeness, but I should like especially to draw attention to the chapters on the circulatory and digestive systems, in which due, but certainly not undue, regard is paid to those parts of physics and physiological chemistry, without which it is impossible to understand the functions of the organs in question.

I think no medical man could fail to read the work (which contains some 1200 pages) from beginning to end without undivided interest, and should be much surprised to learn that there is no good English translation of it.

I am, Sir, faithfully yours,

Darmstadt, July 21st, 1881. O. WALTHER, M.D., Leipzig.

*** We gave the names of eight German works on physiology in the review in question, and thought we had done our duty. We have no objection, however, to include Professor Brücke's work amongst the standard authors in Germany on this subject, though we confess that, considering the high position he holds, we were a little disappointed in our perusal of the first edition. We have not seen the second. Neither edition, so far as we know, has been translated into English.—ED. L.

NEWSPAPERS FOR HOSPITALS.

OBJECTIONS have been urged, and as we think justly, against the circulation of books among the sick. When books are supplied for hospital use they should be so bound as to minimise the danger of their becoming instruments for the conveyance of infective materials. There can be little doubt that a book which has been in the hands of a convalescent from fever, or in those of a patient suffering from contagious disease, may be contaminated. We think it would be worth while to take precautions against this source of peril. There is, however, much less, if indeed any, danger in the use of newspapers, which can be, and should be, destroyed as soon as used. It is, therefore, without reserve that we urge the many readers of newspapers to place their spare copies of the weekly and daily journals in the receptacles which are, or ought to be, found at most railway stations. The hospitals might with advantage have slits opening into newspaper boxes at convenient points of their frontage, where the public might deposit their copies in passing. It is needless to urge that to be acceptable the newspapers left should be those of the day or week.

SALICIN IN EQUINE RHEUMATIC FEVER.

To the Editor of THE LANCET.

SIR,—I have lately had an opportunity of witnessing in my own stable the painful spectacle of a young mare suffering from the above complaint. It supervened upon a bad attack of influenza, and presented, in addition to congestion of the lungs, a group of symptoms exactly analogous to that disease in the human subject—namely, swollen joints, excruciating pain, profuse diaphoresis, and rapid emaciation.

The poor animal had not lain down for five consecutive days and nights, and had stood in a quivering posture of agony, the object of universal commiseration throughout the household, when I suggested to the veterinary surgeon the advisability of administering salicin. He had never heard of the remedy before, but, after some conversation on the matter, consented to act on my advice, and a drachm was given for a dose. The result quite exceeded my hopes; she lay down naturally the same night, slept soundly, and rose up next morning better in every respect. Salicin has proved such a blessing to mankind that I should like, through your journal, to extend the knowledge of it for the benefit of the patient and beautiful creatures that minister so much to our wealth and enjoyment.—I am, Sir, yours faithfully,

J. BERESFORD RYLEY.

Christopher-street, Finsbury-square, E.C.,
July, 18th, 1881.

Mr. George Ellis.—Thanks. The reply was certainly satisfactory.

Obstetricus B.—We shall be happy to receive the papers.

Mr. W. H. Brown (Leeds).—Soon.

Phœnix has not enclosed his card.

Dr. A. G. Barrs (Leeds).—The paper will appear in an early number.

"MEDICAL CERTIFICATES AND THE SCHOOL BOARD."

To the Editor of THE LANCET.

SIR,—The letter published by you from Mr. A. H. Higgins under the above heading in THE LANCET of July 16th is certainly "not uninteresting to the profession;" it also bears upon a point of great importance to the general health of the School Board children and of society at large. It does not require a very long acquaintance with the working of the School Board for a medical man to see how grievously it is affecting the constitution of the children, and none of the charges in the indictment I could bring against the system is of graver import than the one referred to by your correspondent—viz., the charging parents with the cost of certificates for non-attendance.

As it is evidently, from the communication made in Parliament, unlawful for the Board to so charge the parents, it is surely highly reprehensible for the School Board to have printed on their forms of medical certificate the following:—"This form is to be handed to the parent at the Notice B Meeting, and is to be filled up at the expense of the parent." As a result of this, many children resume their schooling before they have properly recovered from an illness, or they are kept at school so long after the illness has developed itself that their chances of recovery are greatly lessened; and, in addition to the injury thus inflicted on the little patients, there is no doubt that cases of infectious diseases are thus spread wholesale.

I enclose a form which the parents could not afford to have filled in, though the child had not regained her strength after a bad attack of broncho-pneumonia, at the foot of which form you will see the paragraph referred to above. You will, I feel confident, not only greatly benefit the condition of our School Board children's health, but also assist the sanitary authorities in keeping under control the spread of infectious diseases, by bringing this matter before the profession in the pages of your valuable journal, as when the law of this point is well known to medical men, they will be the more able to prevent children, when necessary, from attending school, and thus injuring themselves and the community at large.—I am, Sir, yours, truly,

W. J. JACKMAN, M.R.C.S. &c.

Stoke Newington-road, N., July 19th, 1881.

A. W. D.—We have had the subject to which our correspondent refers under our consideration for some time, but as we understand that the whole question of allowances is under revision and that the grievance of which he complains is almost sure to be remedied, we think it better to postpone any discussion upon it till the new regulations are issued.

Surgeon-Major Purdon's letter is unavoidably left over. We shall be happy to receive the communications mentioned.

Mr. F. P. Atkinson.—Soirée at South Kensington Museum and Dinner and Entertainment at the Crystal Palace.

Phœnix (Clifton) is thanked for his "story," but we hardly think it worth insertion.

Querist.—The only way we know of is by applying at the different offices named, or noticing the public announcements.

MEDICAL EDUCATION.

To the Editor of THE LANCET.

SIR,—Perhaps you will kindly grant me space to offer a few remarks on the above subject, which, as Mr. Orchard justly maintains, requires a thorough revision and a thorough change.

1. *The Preliminary Examination.*—I am unable to conceive why Latin and Greek should be reserved as subjects for a special examination; indeed, Greek is not compulsory even in the present day for an *entrée* into the profession; why, therefore, make it compulsory for the future when all the Greek terms can be learnt in a comparatively short time? A knowledge of Greek is not essential to make a practical physician or surgeon, as is evident from the number of medical men in practice who know nothing whatever about the language, and I am sure we have a sufficient number of subjects of our own to deal with without trenching upon the ground of other professions. I would, therefore, suggest that a certificate from a B.A. or M.A. of any university in the United Kingdom, stating that he has examined a candidate for the medical profession in Latin, mathematics, and mechanics be sufficient to exempt that candidate from further examination in educational subjects.

2. *Lectures.*—I quite concur in Mr. Orchard's belief that there is no use whatever in lectures, for the vast majority of students depend far more upon their text-books than their note-books in reading for an examination. It is not only a waste of time, but a direct loss of money in some cases, for I paid three guineas for a course of lectures on a certain subject prescribed by my medical curriculum, and, although I attended regularly, I never heard a sentence of what the lecturer was speaking about, owing to his age and consequent weakness of voice and indistinctness of speech; and here, be it remembered, it is with no disrespect to the lecturer that I relate this instance, for he was an eminent man in the profession, and one who added largely to its advancement and literature. Another lecturer I well remember, also an eminent man in the profession, who might have been very interesting and instructive to advanced students, but was totally unintelligible to beginners with his learned discourses of many theories. I am of opinion that lectures might be discarded entirely with advantage to the student.

3. *Apprenticeship.*—Where there are but one or two pupils greater care and attention can be bestowed upon their medical training than where there are thirty or forty. Let each candidate, therefore, serve an apprenticeship of five years, the last two of which might be spent in "walking the hospitals" and following practical anatomy. During the first three years he could be instructed in the different subjects which he has now to attend lectures upon, and study the cases with which he is frequently coming in contact in after years, and which he does not meet with in hospital practice. I must here candidly confess I see a difficulty in the pupil attending practical midwifery, particularly if he be young-looking; but this part of his education could be continued in the fifth year of his apprenticeship after having been at the hospital for his first year.

4. *Hospital Attendance.*—I have seen this part of the curriculum very successfully conducted in the following manner:—The patient in bed in the centre of the ward. The students sitting round on forms, excepting the one selected to examine the patient, who would be requested to listen to the chest (supposing it a chest affection), and explain in his own words what he heard, the lecturer himself converting them into technical phraseology, then eliciting from the students the possible causes and treatment. By these means the cases were forcibly impressed upon our memories, and by taking only two or, if time permitted, three cases in the morning, each student was enabled to hear the sounds for himself.

5. *Specialties.*—Insanity, the eye, and the ear; the student would find more time to devote to these.

6. *Examinations.*—Let these be essentially of a practical nature, and only in the following subjects:—Primary, practical anatomy; final, medicine and surgery. Take the candidate to the bedside and allow him to diagnose the case, then ascertain what his prognosis and treatment of that case would be. For the remaining subjects accept certificates of competence from the practitioner with whom the candidate had been apprenticed.

We should thus have men ground in the rudiments of their profession, and able to take a practical part in it directly they got their diplomas, instead of advertising for situations to improve themselves in self-reliance and practical experience, as is sadly too often the case in the present day.

I am, Sir, yours truly,

Hull, July 19th, 1881. FRED. R. CHAPMAN.

LINES ON JENNER.

To the Editor of THE LANCET.

SIR,—If the following lines, apparently intended to be an epitaph, written by the Rev. G. C. Jenner, a near relative of Edward Jenner, M.D., have not appeared in your journal, please kindly insert them.

I am, Sir, yours truly,

Shepton Mallet, July 23rd, 1881. F. PORTER SMITH, F.R.G.S.

"Within this tomb hath found a resting-place
The great physician of the human race,
Immortal Jenner! whose gigantic mind
Brought life and health to more than half mankind.
Let rescued infancy his worth proclaim,
And lisp out blessings on his honoured name;
And radiant beauty drop one grateful tear,
For beauty's truest friend lies buried here."

THE INFLUENCE OF COMMON SENSES ON ORGANIC FUNCTIONS OF THE BODY.

To the Editor of THE LANCET.

SIR,—A gynæcological *assant* records in one of your American contemporaries the case of a lady who, on reading in a newspaper that her husband, who she had previously read and heard was drowned, was one of the survivors in a shipwreck, went at once into strong hysteric fits, and subsequently suffered from profuse menorrhagia. The case points to the very interesting nature of the latter affection from the psychological standpoint. There is not sufficient evidence, however, to judge aright whether the patient in this case had previously suffered from organic disease of the uterus to account for the menorrhagia, or whether she was menstruating at the time, and that this function was accelerated by the excitement of the intelligence.

I will relate, but very briefly, a case of terror in a male subject, and its reflex influence as noticed at the time. Professor Brown-Séquard has, no doubt, by his various researches, shown the effects of mechanical irritation of the "motor zone" of the brain in the lower animals experimented on by him, but neither he or any of his contemporary physiologists, either in the United Kingdom or on the Continent—Ferrier and Hitzig—has demonstrated the exact parts of the brain upon which non-mechanical irritation or stimulation acts. The case to be related occurred to the writer towards the end of June last year, in the Hurnai Valley in Afghanistan, and the subject was a male telegraph signaller. This man was wired to by a fellow-signaller from an adjoining post (as they frequently exchange news with one another by conversing by means of the wire) that the enemy in large numbers were attacking it, that the garrison was out, and that there was a fight going on; and that he was told that some of our men had been killed and wounded, and, further, that the enemy were making for the direction of our post. According to the description of an officer who had to work the telegraph himself for important telegrams then passing through, on account of the signaller's temporary incapacity, this man had actually a fit of rigors, followed by high fever immediately. This was during the day. Next morning, on having occasion to go to the telegraph tent to send some messages, I took the man's pulse, and noticed his skin and manner, which latter was calm and collected. After a very brief talk on some general subject which did not interest the man, I suddenly, and to him unexpectedly, as he did not seem to know that I knew it, questioned him regarding the occurrence of the day before. The native signaller automatically repeated the identical words he had used to the officer aforesaid—namely, "Sir, the military department is a dangerous department;" after which he stammered and even faltered in his speech, and then he could not speak at all, as if he had aphasia. Instantaneously with this was noticed an acceleration in the radial pulse, and his skin felt cold; he also micturated involuntarily. After he had recovered himself sufficiently from this, and with the view of observing further effects, I remarked to him the possibility of all of us being "annihilated" there by the enemy. At that time there was disquieting intelligence coming in from all directions, culminating in the disastrous news of the defeat of General Burrows, and the forces of Ayoub Khan besieging Candahar. The Afghans knew about all this long before we did. He was then standing; he immediately appeared faint, and to keep himself from falling he grasped a pole of the tent, and had to lie down subsequently.

In such cases is there a determination of blood to special parts of the brain at the expense of those centres governing certain organic functions of the body? Upon the answer to this question would depend the real and correct explanation of the cause acting from specific centres of the nervous system, and producing the outward effect known as "shock." If this be so when both the cause and the effect, so far as we can judge, are temporary, what would the effect be when the cause, so far as it is known to us, is kept up for any lengthened period? Would the effects on the different functions of the organism be more lasting, or would they be of a different nature? It would be interesting if the subject of prolonged joy, sorrow, terror, and the other feelings were handled by experts. The subject should be discussed from a materialistic point of view, appealing to actual biological observations and to physiology and anatomy, and not to philosophy (moral or mental), or to any of the doctrines or dogmas of religion, or to references to history, tradition, &c. Every statement in such an inquiry should be shown to be a fact, proved not only to the writer's own satisfaction, but to that of the reader and to the most sceptical critic.—I am, Sir, yours, &c.,

Afghanistan, Feb. 1881. JOHN C. LUCAS.

"THE VALUE SET ON MEDICAL SERVICES AT NORWICH."

To the Editor of THE LANCET.

SIR,—Allow me to correct certain inaccuracies in your article on the above subject. The salaries paid to the surgeons of the medical institute do not include midwifery fees, which, with other items, increase each of their salaries £100, while the resident surgeon has, in addition, free house, coals, and gas. Your remark "that each medical man has his own conveyance" applies to 1881, for which £50 extra was allowed the surgeons. The contributions of members do not include vaccination fees, as may be seen by the report.

As to the work done, 16,232 home visits give a daily average of twenty-two for each surgeon, and that, too, within a limited area, while the 59,329 mentioned in your report include all cases of prescriptions dispensed without consultations, so that an approximation of the surgery consultations cannot be given.

The value set on club appointments by Norwich medical men may be gathered from the fact that at the appointment of a surgeon to a club paying a shilling a quarter per member held lately, two of our hospital staff were candidates, while any club paying 9d. a quarter for members and 1s. 6d. for families (the same scale as the institute) finds no difficulty in getting a surgeon among general practitioners.

I may mention, too, that when one of the institute appointments becomes vacant we generally have between thirty and forty applicants.

I am, Sir, yours, &c.,

Norwich, July 27th, 1881. ONE OF THE MEDICAL INSTITUTE COMMITTEE.

BEARER COMPANIES FROM THE LONDON HOSPITALS.

To the Editor of THE LANCET.

SIR,—I would be glad if you would allow me to point out how easy it would be to organise bearer companies of the volunteer force in the London medical schools. The various medical students who are now serving in London volunteer regiments could combine and form in each hospital a bearer company. These organisations number about 110 soldiers in each, with seven medical officers, and a proportion of quartermasters, &c. The capitation grant of £1 10s. per annum per official volunteer could be claimed for each private, and a larger sum for each sergeant and officer. The bearer company being commanded by the medical officers, each hospital could organise its company quite without outside aid, and become valuable helps to the volunteer army. I do not think any difficulty would present itself in forming these bodies.

The uniform would be like our Army Hospital Corps, and a sergeant instructor could be furnished from Aldershot very easily. I think it would be useful to the students even from a professional point of view, apart from the question of the discipline and *esprit de corps* such organisation would be sure to develop.

I am, Sir, yours, &c.,

G. T. H. EVATT, M.D., Surgeon-Major A.M.D.

Royal Military Academy, Woolwich,
July, 1881.

Phœnix overrates the wealth of hospitals. Most of them live from hand to mouth, and even the largest and the richest of them have to send many needy applicants away without accommodation.

Mr. Roger Williams.—In an early number.

TREATMENT OF GONORRHŒA BY INJECTIONS OF SULPHUROUS ACID DILUTED WITH WATER.

To the Editor of THE LANCET.

SIR,—For some time I have treated all cases of gonorrhœa with injections of sulphurous acid diluted with water, and as the results in my hands have been very satisfactory, I write in the hope that others may be induced to give this method a trial.

I do not offer any theory on the subject, I simply state the fact that I have now treated sixteen cases of gonorrhœa, using no other medicine, and they all returned to duty in an average of six days. I have not observed a relapse or any bad effect. The majority of the cases were second attacks, but those suffering from primary attacks of the disease recovered equally fast.

When I commenced this method of treatment I used much stronger injections than I do at present. I find sulphurous acid one part to fifteen of water quite strong enough for most cases. The rules of treatment I recommend are: place the patient on low diet, and administer injections of sulphurous acid diluted in water one to fifteen, three times a day, no other treatment being necessary. I find it is necessary for the attendant to give the injections, for if it is done by the patient it is never well done, most of the fluid escaping back outside the nozzle of the syringe. The injection should be kept in the urethra from three to five minutes. If the patient complains of much pain, or if there is a tendency to chordee, it will then be sufficient to administer the injections once or twice in twenty-four hours.

If these instructions are strictly followed, the purulent discharge will become scanty at the end of the first day, and on the third it will be replaced by a thin, gleety discharge, which also disappears in a couple of days. While this watery discharge lasts I usually administer only one injection daily. I find that the first injection frequently causes pain, which is not so much complained of afterwards. I, therefore, in a few cases give the first injection very much diluted—one in twenty, afterwards using one in fifteen. It is necessary to see that the sulphurous acid is fresh and good before it is diluted to the required strength.

I am, Sir, yours, &c.,

June 30th, 1881. W. D. WILSON, M.B., Surgeon-Major.

AMATEUR DOCTORING WITH HOMŒOPATHIC PILLS.

To the Editor of THE LANCET.

SIR,—It may be a satisfaction to those who are fond of a bit of amateur doctoring to hear of the innocuous effects of large doses of the so-called remedies which need no longer be kept under lock and key, but may be safely used as playthings for the nursery.

A gentleman called upon me, under considerable anxiety, a few evenings since to request my advice in the case of his child, aged four years, which had about two hours before eaten the contents of two bottles of homœopathic pills he had bought that day at the shop of a most respectable chemist, with directions to give one to a child and two to an adult for a dose. He said that one bottle contained belladonna pills and the other aconite, 100 in each.

I called in question the fact of the child having eaten them, as probably they were thrown about, but his answer was that both he and his wife were quite satisfied on that point, "the child had eaten them." He reported that at present the child evinced no indisposition. After drawing his attention to the symptoms of an overdose of such drugs as the pills were said to contain, I directed him to let me know if the child became in any way ill in the night. Hearing nothing, I called the next day, and was gratified to learn that the child was well, nor had it been otherwise since its supper of 200 pills.

I am, Sir, your obedient servant,

Hitchin, July 5th, 1881. O. FOSTER.

CHRISMA AS A PARASITICIDE.

To the Editor of THE LANCET.

SIR,—The discovery of new and efficient remedies for the treatment of skin diseases cannot fail to call forth much satisfaction from the dermatologist. Since the production of the petroleum jelly, vaseline, and its ally, chrisma, we have been afforded media for the diffusion of medicinal applications of a kind the most uniform and stable—in short, as vehicles they cannot be surpassed.

I desire, however, to ask further attention to the subject matter of Dr. Crane's letter, published in THE LANCET, July 9th, under the above title; at the same time to assure him of the well-intentioned and friendly spirit of my remarks.

When vaseline was first adopted I made a series of observations upon its effects when used uncombined in a variety of skin diseases, including those dependent upon animal and vegetable parasites. I kept notes of cases, and concluded that as a parasiticide it was practically valueless. In one case of scabies I was able to procure several living acari, notwithstanding the affected part had been kept constantly covered with it for four days and nights; besides which, in phtheiriasis and all forms of tinea, the results were equally unsatisfactory. Soon afterwards the basis, chrisma, came to the front, and my experience of it, after careful and detailed observation as a parasiticide, was in every respect similar to that of vaseline. For my own part, then, and as the result of my own experience, I am compelled to admit that both chrisma and vaseline as parasiticides are absolutely useless.

Dr. Crane will greatly oblige those interested in this department of medicine if he will inform us whether in his cases of scabies he was able to demonstrate microscopically acari alive and dead (before and after treatment respectively) the only reliable method; and whether the microscopical examination of the hairs, after the applications in his cases of tinea tensurans, failed to show spores or mycelia of the tricophyton.

I am engaged in making many weekly examinations of this kind, both in the skin department of St. Bartholomew's and at the Blackfriars Skin Hospitals, and will only add that if Dr. Crane's experience, valuable as it reads, be supported by other observers, I have justly incurred the severest reproach for my oversight.

I am, Sir, yours faithfully,

J. HERBERT STOWERS, M.D.

Finsbury-circus, E.C., July 18th, 1881.

PHYSICIANS' PRESCRIPTIONS.

AT a recent meeting of the Philadelphia Medico-Legal Society (says the *New York Medical Record*) the relation of physician and druggist was discussed at considerable length, and some interesting facts were given regarding the plan of the physician prescribing his own medicines. One method described was as follows:—The physician employs a graduate in pharmacy, who calls at the close of his office hours for all the prescriptions. These he takes and compounds *secundum artem*, and delivers at the patients' residences, the physician keeping the prescriptions. The plan was stated to have worked well for several years.

X. X. is thanked for directing our attention to the facts, which are in one sense surprising, though not in another.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Julius Pollock, London; Mr. Eastes, London; Messrs. Southall Brothers, Birmingham; Mr. F. Nicholson, London; Dr. Hime, Sheffield; Mr. Roger Williams, London; Mr. Atkinson; Dr. Easby, March; Dr. Reichert, Newark, N.J.; Dr. C. Bäumler, Freiburg; Dr. Davey, Ryde; Mr. R. B. Walker, Didsbury; Mr. Brewerton; Surgeon-Major Evatt; Surgeon-Major Purdon, Guernsey; Mr. Hissink, Goebersdorf; Mr. Eales, Birmingham; Mr. G. Ellis, London; Dr. Veale, Netley; Dr. Taylor, Scarborough; Dr. Walther, Darmstadt; Mr. Porter Smith, Shepton Mallet; Mr. A. Greenwood, London; Dr. Shingleton Smith, Clifton; Mr. J. Taylor, Chester; Mr. Barwell, London; Mr. Gaylor, Belper; Dr. Lucas, Afghanistan; Dr. Dale, Lynn; Dr. Evans; Dr. Shuttleworth; Dr. Harris, Redruth; Mr. Harrison, Liverpool; Mr. Wilson, Liverpool; Messrs. Lee and Nightingale, Liverpool; Mr. Johnson, Brighton; Dr. Finch, Salisbury; Mr. Gann Mr. T. Holmes, London; Mr. M'Munn, London; Mr. M'Caw, Portglenone; Mr. Jennings, London; Mr. Dereuth, London; Dr. Thin, London; Mr. Armand; Dr. Honiball, Mahaica; Obstetricus B. Medicus, Sheffield; H. S.; Ebrietas; X. K.; A.M.D.; M.D.; K.G.; &c., &c.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Scott, Glasgow; Dr. Wigglesworth, Ashford; Mr. Franklin, Newcastle-on-Tyne; Mr. Haxworth, Liverpool; Mr. Wilson, Liverpool; Mr. J. Ward, London; Dr. Broadbent, Belford; Mr. Buckley, London; Dr. Weakes, London; Mr. Robinson, Northampton; Dr. Harriss, Easingwold Dr. Griffith, Anglesea; Mr. Wilson, Liverpool; W. Birch, Manchester; Mr. Scott, Manchester; Messrs. Richards and Co., London; Dr. Parry, Caerawa; Mr. Darke, London; Mr. Bloxham, Halesowen; Messrs. Marks and Co., London; Dr. Rayner, Hanwell; Mr. Brockelbank, Islington; Mr. Torrents, Newcastle-on-Tyne; Mr. Johnston, Brighton; Mr. Carter, London; Mr. Young, Bridgwater; Mr. McKee, Thurlow; Mr. J. B. Cooke, Hackney; Dr. Williams, Sherborow; Mr. Haigh, Meetham; Mr. Bellamy, London; Mr. Beattie, Sunderland; Mr. Robbin, Weston-super-Mare; Miss Pritchard, Hayes; Mr. Eschwege, London; Messrs. Wright and Co., London; Messrs. Kilner and Co., London; Dr. Kennedy, Dublin; Mr. Thistle, Torquay; Mildred, Brighton; W.; X., South Kensington; Gamma; Medicus, Willington; Rees; Medico, Harrow-road; L. M. L.; A. B., Liverpool; W. H. S., Kingsbridge; Veritas; M.R.C.S., Liverpool; W. J. W.; Medicus, Blackburn; M. S., Finsbury; A. B., Lutterworth; A. A., West Burton; M. B., Burton-on-Trent; J. G., Nottingham; Medicus, Dublin; Delta, Cubitt-town; H. M. C.; H. C., Reading; Medicus, Great Yarmouth; D. J. C.; T. D. W.; B. O. J., Bermondsey; E. F.; A. B., Sheffield; M. J.; Xema; Medicus, Stockton-on-Tees; V. P.; &c., &c.

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